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AUTHOR Hall, Calvin W.
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ABSTRACT

Divided into four major sections, this collection of articles addresses the sharing of services in California by school districts or by districts and other agencies. The section on advertising and recruitment makes a case for districts to share in the purchase of employment ads or in the hiring of a recruiter. A reprint of an article about a "purchasing pool" formed by Sacramento area school districts is found in the second section. The third section contains four articles: the first highlights a California transportation cooperative formed by the Mid-Placer Public Schools; the second describes cooperative efforts at transportation among elementary and high school districts in Antelope Valley; the third is on a computerized school transportation service managed cooperatively by the San Francisco Unified School District and a private contractor; and the fourth deals with a transportation program in Los Angeles in which services are provided jointly by private contractors, school districts, and public transportation systems. The section on shared insurance acquisition details a shared insurance program in Los Angeles County and reprints several articles on shared insurance programs. A lengthy appendix reprints the Antelope Valley schools' transportation agency joint power agreement. (JM)

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

- Services sharing can be between school districts or between school districts and other agencies.
- Monetary savings can be acquired in a variety of ways.
- Provides agencies with small resource bases to acquire the economic impact of much larger entities.
- Can be a source of increased knowledge for staff.

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COOPERATIVE ACTIVITIES

Most states permit school districts to act jointly for the purposes of meeting the needs of the educational program.

In California two particular methods are employed by school districts to act in concert with one another.

FORMAL - JOINT POWER AGREEMENTS

Joint power agreements permit governmental agencies to form an independent agency for some specific function. Governance is obtained by establishing a representative board comprised of the participating school districts/agencies.

The joint power agreements are a legally constituted agency and bear the same legal burdens, rights and privileges as the parent agencies.

An example of a typical joint power agreement has been included in the appendix (Appendix A).

INFORMAL - POOLING

Pooling of resources/financial purchasing power requires no formalized agreements. Districts/agencies act in concert with one another while still retaining the right to act independently.

There are advantages and disadvantages to both forms of relationships. The joint power agreements provide for a highly structured organizational relationship including dissolution rights. The pooling approach tends to be much more of a loose knit arrangement which permits participants to "come and go" as most advantageous to individual entities.

To prevent raising "turf" problems and to permit establishing working relationship, it may be advisable to try some type of joint pooling effort before utilizing the joint power agreements or formal agreement method.

CONTINUING IMPACT FACTORS

ENROLLMENT DECLINE

High school enrollments will drop throughout the decade even as enrollments in primary grades stabilize and begin to grow in the middle to late 1980's.

SLOW TURNABOUT

Total school population — those aged 5 to 17 = 52 million in 1970 and equaled 47 million in 1979.

Projections indicate a drop to 43.5 million by 1985 with increases to 44 million by 1989.

MISCELLANEOUS TRENDS

Pressures on public schools for providing extra services that accompany increasing minority concentration and for dealing with political strife that accompanies change will likely continue into the 1980's.

A survey of 286 state education policymakers and interest group members pinpointed school finance reform and local property tax reduction as the key education finance issues for the coming decade.

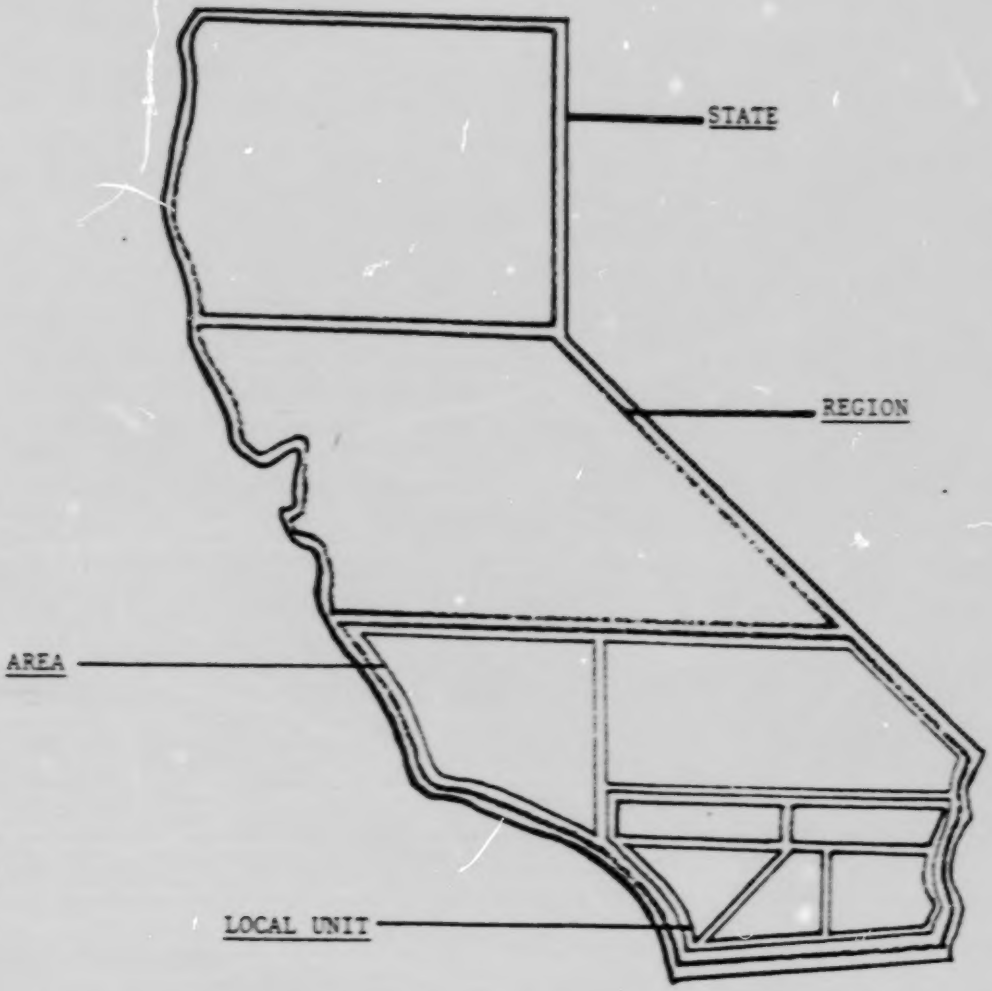
School revenue sources continue to shift from local levels to state levels.

Thirty years ago local schools funded two-thirds of their program costs. That share has dwindled to 44% in 1979.

Federal Level

- Make up of Education Committees in both houses give the appearance that there will be less sympathy for schools (and all social programs).
- A systematic revolution has begun — result that more and more decisions will come from Washington.
- Competition for funds is building between elementary/secondary vs. higher education.
- President has proposed to reduce Department of Education budget from $14.1 million last year to $13.5 million. Congress has introduced no amendment to increase.

HYPOTHETICAL JURISDICTIONS



SHARED

ADVERTISING AND RECRUITMENT

A DIFFERENT APPROACH

TO

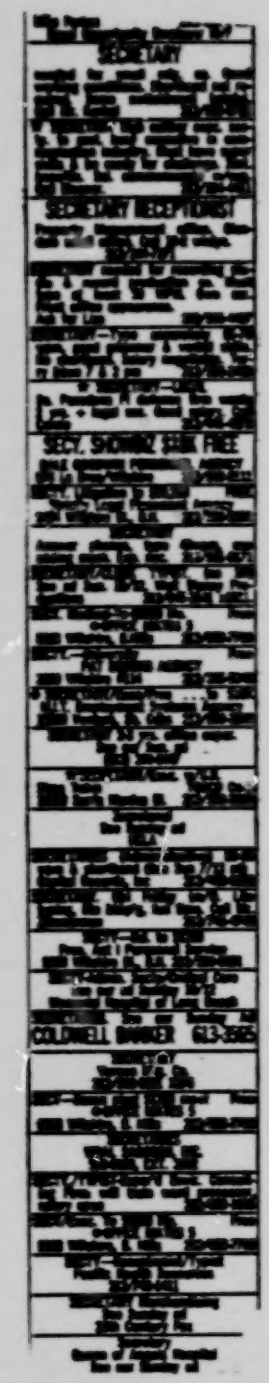
ADVERTISING AND RECRUITMENT

- Traditionally most agencies advertise vacant positions in the Saturday/Sunday newspaper want ads.
- Ads appearing for governmental agencies tend to be small and easily overlooked.
- Ads tend to be drab and non-appealing — therefore they do not catch the applicant's eye.

. . . . . SUGGESTIONS . . . . .

- Contact neighboring districts and attempt to coordinate and cooperate in filling vacant positions.
- Pool your resources and buy a larger ad space to include each agency.
- Design your ad to be eye-appealing and to compete with the private sector.
- Share temporary and substitute name lists with each other.
- Use a combination of small and high circulation newspapers.
- Don't limit your ads to local and/or area newspapers.
- Pool financial resources or staff services to use one recruiter for several districts.

ADVERTISING AND RECRUITMENT



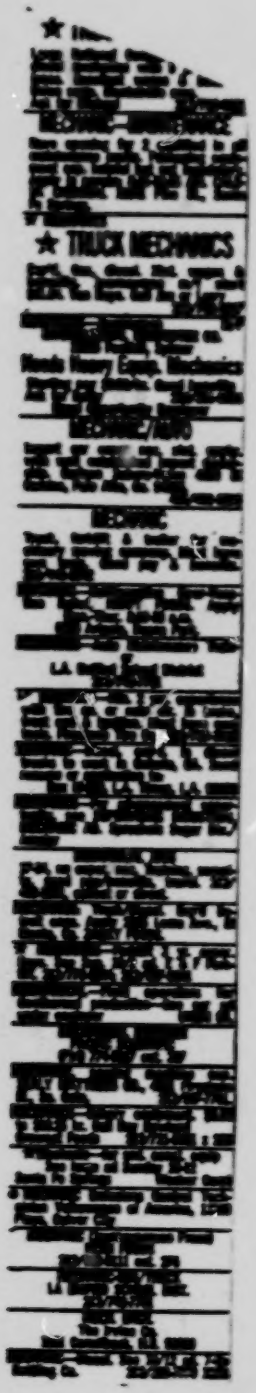
CAN

YOU

LOCATE

YOUR

ADVERTISEMENT?



Put your career into action! We have immediate openings. In exchange for your talents we offer attractive salary and competitive benefits.

X Y Z SCHOOL DISTRICT
Address:
Phone xxx-xxxx to obtain applications for
Typist Clerk $
Electrician $

R S T SCHOOL DISTRICT
Address:
Phone xxx-xxx to botain applications for
Bus Driver $
School Nurse $

L M N SCHOOL DISTRICT
Address:
Phone xxx-xxxx to obtain applications for
School Principal $
Typist Clerk $

WE ARE HIRING . . . . .

Supply Clerks $
H I J School District
School Secretaries $
B C D School District
Payroll Clerks $
F G H School District
I J K School District

WHY NOT SHARE THE COST

AND

HAVE BIGGER ADS TO INCREASE

POTENTIAL OF APPLICANT RESPONSE

USING A JOINT POWER AGREEMENT

TO

PURCHASE SCHOOL SUPPLIES

Reprint from "CSBA Indepth" June 1980

$ Buying School Supplies

How Sacramento Area School Districts Get What They Pay for — and More

The purchase of crayons, envelopes and paper towels hardly sounds exciting, but Sacramento area school districts have developed a related plan with a certainly exciting result — the saving of thousands of dollars each year.

Their tool for cutting costs is a joint powers agreement, which allows them to buy scores of schools supplies as a single body with more than a million dollars behind it.

Members of the purchasing "pool," which is said to be one of the nation's largest, don't have any figures on exactly what the savings are. However, one estimates their costs at anywhere from 44-47 percent below list prices.

By jointly bidding for office, custodial, general classroom and cafeteria supplies, as well as first aid and athletic equipment, the more than 100 districts involved in the arrangement are able to attract prices sometimes lower than even those in the massive state of California purchasing pool.

Moreover, the pool's leaders say supplies are of better quality because purchasing agents will share their knowledge about products and needs. Each member of the purchasing committee was assigned to study a particular item — glue, for example — before drafting its specifications for the group.

"I've become a pencil expert," laughs Joan Norbryhn, purchasing agent for the Rio Linda School District.

Norbryhn was one of several purchasing officers who came together 10 years ago to try to curb rising costs, particularly with paper products. Their inspiration was a grand jury report advocating that school purchasing in the county be centralized.

According to Norbryhn, cooperation between the county's school districts was nothing new at the time. For years, they had coordinated bidders' dates and shared vendor lists.

But larger districts hadn't yet consolidated their bids, and the districts with a comparatively small student attendance had previously been required by law to purchase through the vendor list from the county office of education.

"The smaller districts were really having to pay through the nose," recalled Norbryhn in a recent interview.

The problem, she said, was finding an entity that could coordinate the purchasing for the many Sacramento area school districts and their more than 180,000 kids. The Sacramento County office of education had been suggested, but it didn't have a purchasing agent, warehousing or distribution facilities. "We certainly couldn't do it with a county office that didn't even have a system," Norbryhn points out.

However, the Placer County Office of Education did have a system. And it was already serving the multitude of small districts within its own boundaries as well as those of neighboring Sierra and Nevada counties.

Formed in 1958, the tri-county arrangement had been called a "wonder" by those observing the communication complications of the Placer-Sierra-Nevada area. Distances

Some pointers for cooperative purchasing

Once governing boards sign a joint powers agreement authorizing a "purchasing pool," representatives of the Sacramento area group suggest that:

1. The pool maintain accurate records and minutes of all its meetings, including the planning ones.

2. A "strong leader" be appointed to ensure that the group's ideas are carried to fruition. Communication, coordination and program evaluation must be well supervised.

3. The number of delivery sites be kept to a minimum to attract vendors.

4. A gradual approach be taken in converting commodities to a bulk purchasing basis. Before group specifications are drawn for a particular item, representatives should evaluate the potential savings, whether standardization is possible (or desirable), and any possible delivery or storage problems.

5. The group be limited to a particular geographic area and to schools and colleges only, since their supply needs calendar will vary from that of other government entities.

6. A mechanism be established early for dealing administrative costs.

Additional information is available from Joan Norbryhn at (916) 991-1704 and Tony Turcotte at (916) 823-6222.

between the districts were far, the terrain, rough and mountainous.

Few vendors were servicing the area before 1958 and those that did charged relatively high prices – partly because of the expense of delivery.

So a committee of school administrators – after reviewing the bills being paid – whittled down the standard supply list from 79 to nine items.

The experiment was a "resounding success," according to Tony Turcotte of the Placer county office. He reported a savings in 1959-60 of more than $12,000, or some 33 percent.

Over the next decade, Turcotte says, the 33 percent savings grew to about 40 percent. Then the Sacramento County Area Joint Purchasing Group entered the school business picture.

The Beginning

In 1970, governing boards for each of the school districts in the then proposed group passed a resolution authorizing the necessary joint powers agreement. Joining them was the Placer county office, which had the computer facilities to provide administrative coordination.

Their first target was skyrocketing paper costs, which had risen from 55 to 85 cents per ream in a single year.

With their combined paper need, the districts were able to attract 16 bids. The first one was eight cents lower than what they'd paid the year before.

In contrast, the state of California – even buying for city, county, school and other governmental agencies – was only able to obtain a bid of 80 cents per ream.

"I know we didn't beat their price before," says Norbryhn, who has worked 19 years for RLSD.

The paper was only the beginning.

Gradually, the group converted more and more commodities to a bulk purchasing basis. In the winter months, the participating districts would fill out and return an order list to the Placer county office, whose computers would total the figures. The final orders would be sent to the vendors, who would make their bids in the spring. A month or so after the bids were awarded, the districts would each submit their purchase orders – in time to receive the supplies before the start of school.

The goods are delivered to the nine larger districts in the Sacramento area and the rest to the county office, from where they are picked up by representatives of the smaller entities. The fact that deliveries only need be made at 10 locations helps to keep bids low, Norbryhn says.

To pay for operating a warehouse, computer time, a secretary's salary and mailing costs, the county office charges a fee equaling a small percentage of a district's total purchase. In the case of Rio Linda, it amounts to about $600.

"Compared to what we save on prices, that's nothing," Norbryhn says confidently.

Norbryhn, who serves as the assistant state purchasing chair for the California Association of School Business Officials (CASBO), is pleased with the arrangement for another reason. Several years ago, she remembers, the districts in the pool received a large shipment of pencils that complied with the specifications on paper but were a "disaster" in practice.

Districts in the included mountain counties secured prices far lower than did urban districts with much larger orders.

A questionaire was sent to the various school sites asking for a rough estimate of the number of defective pencils. The average was about 40 percent, so the pool complained to the supplying vendor.

The vendor then sent to every district a set of new pencils amounting to about 40 percent of their original orders. "I don't think any one of us would have been able to do that on our own," Norbryhn opines.

When a vendor is dealing with an order of more than 50,000 pencils, she explains, "it may make a difference."

Pool Rules

What also may make a difference is the quantity guarantee the pool can give to vendors. Once a district orders an item in the spring, it's bound by pool rules to purchase it.

Occasionally, a mistake is made and a district will order far too many of a particular item, Turcotte says. The county office then tries to help by spreading the word to other districts, so that they can order that item from the one oversupplied.

The pool has a unique requirement that any company bidding must bid on all commodities in the group. That way, companies can't offer a low price on one item and high ones on all the rest. "They've got to take the good with the bad," Turcotte adds.

Still, the arrangement isn't trouble-free.

One problem is that orders must be placed during the middle of the year before they are to be used. "It's difficult to get a teacher-principal-custodian-bus-driver to place an order in November when he can't receive it until July," Turcotte observes. In small districts, "they do a lot of 'guesstimating'."

Turcotte's observations are based on years of experience, having been with the county office at the time the pool was born and then working with the state Department of Education's management services division. He returned to the Placer county office in time to watch the pool's services expand.

Standardization Problems

Its successes notwithstanding, one concern about the arrangement is that the commodities that serve one district may not serve another. As curriculum becomes more

Purchasing (cont.)

Specialized supplies may become more specialized as well.

But Norbryhn points out that no district has to purchase any item from the pool's list. It's just that once an order is placed through the pool, it can't be rescinded.

"This gives us credibility with the people who bid on it," Norbryhn says. "Once you establish a good reputation, you always get the best item for the best price."

That holds true even for items that aren't purchased through the pool. Norbryhn explains that a vendor will give good service to an individual district in the group to ensure that positive relations are maintained with the group as a whole.

Some items, she admits, can probably never be purchased in bulk because of differing needs. She also notes that the pool might not work as well in high schools where coaches have certain preferences for athletic equipment and art projects require a variety of supplies.

In the elementary schools, however, the savings in paper and crayons alone can mean thousands of dollars for a district.

During 1978-79, for example, the group obtained crayons at a cost of $1.438 per dozen while two large Bay Area districts paid $1.92 and $2.95, respectively. That means districts with 100 or fewer students in the included mountain counties secured prices far lower than did urban districts with much larger orders.

It's those kinds of experiences that makes Norbryhn hope other districts will catch on to the idea.

She's not fully optimistic that other districts will, though, unless someone takes a leadership role in bringing them all together. "It might be that school board members are the best catalyst," she reflects.

With today's fiscal constraints, that "catalyst" might be most needed today, Norbryhn adds. Yet it may be more difficult to form such a group than it was when the Sacramento area plan was developed.

At a time when school budgets weren't so constrained, Norbryhn explains, it was easier to commit expenditures months in advance. Then came Prop. 13 of 1978, and districts like Rio Linda had little choice but to order last-minute reductions in their supply budgets.

"We actually had to ask our vendors to break contracts," Norbryhn recalls.

The vendors agreed, and Rio Linda's [illegible] was cut in half for 1978-79.

Does that mean a pooling arrangement, where items must be ordered ahead of time, is no longer feasible?

Norbryhn doesn't need to reflect before offering a firm "no."

She says Rio Linda learned from the cutbacks of two years ago that supplies aren't an easy item to reduce. For instance, she continues, a decision to eliminate rubber balls led to "chaos" during recesses because students didn't have the tools to occupy their time.

It's possible, then, to at least place a minimum order of items that would still be needed in the midst of funding reductions, Norbryhn concludes.

On the Smaller Scale

Her counterpart in Placer County, Turcotte, says it's also possible to start a pool without sophisticated computer equipment. He reminds a reporter that if the Sacramento-Placer-Sierra Nevada area weren't so large, the necessary computations could have been made with basic accounting equipment.

In some ways, starting a cooperative in 1980 may actually be easier than in 1971. For some of the important groundwork -- the development of recommended specifications for a variety of products -- has already been laid.

As part of the CASBO purchasing committee, representatives from the pool prepared three booklets with specifications for general classroom and office supplies, first aid and athletic equipment, and custodial and cafeteria supplies. The first was published in 1978, the second in 1979, and the third, in 1980.

"These (well-designed specifications) are where we gained our strength," Norbryhn says.

The group's strength had a variety of spin-off benefits, such as the release of staff from time previously spent with purchasing. And as personnel is reduced because of funding cuts, Norbryhn notes, purchasing duties have been handed higher and higher up the administrative ladder.

"In the long run, this amounts to waste of funds that could have been spent on an improved instructional program," Turcotte wrote in a January 1971 paper.

Turcotte commented in the same paper that the pool is proof of districts' ability to "agree and cooperate," and to cooperate successfully. To him, Norbryhn and others involved in the arrangement, it seems that those words are as true as they were a decade ago. □

SHARED

TRANSPORTATION SERVICES

Mid-Placer Public Schools

Antelope Valley Schools Transportation Agency
Joint Powers Agreement Cluster Plans

Office of the Los Angeles County
Superintendent of Schools
A Computerized On-Line Regional Plan

Mid-Placer Public Schools: A New Concept in Student Transportation

by Randy North
Director, Mid-Placer Public Schools

Mid-Placer Public Schools (MPPS) was formed as a transportation cooperative beginning with the 1974-75 school year to provide the proper preventative vehicle maintenance, driver training, and transportation administration required for safe pupil transportation, the laws of California, and the U.S. Department of Transportation. Until last January the Transportation Agency operated as a department of Placer Union High School District, but is now a joint powers agency of the participant school districts. The MPPS Governing Board consists of two representatives from each member district. The director of MPPS oversees all functions in the Agency including operations, vehicle maintenance, personnel, fiscal, policy, and public relations matters. The Director meets with the seven school districts' and the County Office of Education representatives monthly to discuss major developments and to receive direction, much like a school board meeting.

Bus routes are designed primarily to support the needs of each school. Routes are also scheduled to reduce costs by combining runs of the different participant schools. To achieve a lower operating cost and savings of tax dollars, schools alter their schedules somewhat. The pooling of the bus fleet significantly increases the utilization of buses. The burden of administering the school transportation system is almost completely removed from the school administrator, allowing those unused work hours to be diverted into other school administrative areas.

Costs are shared. Each participant reimburses the Agency a percentage of the total home-to-school costs based upon historical mileage data. Additional services, such as special trips and district vehicle maintenance, are billed separately.

The charter members identified the need for the Agency; it was apparent to these administrators and board members that improper maintenance, training, or supervision of the school bus fleet would result in a potentially disastrous situation. Additionally, administrators were finding that it was taking considerably more time to keep up with the new regulations in order to properly administer personnel matters and make arrangements for maintenance of their fleets. With most, financial constraints would have denied their districts' need for transportation expansion.

Statewide, individual school districts owning and operating their own fleets have experienced increased fiscal and operational problems. The demand for increased student transportation has been brought about by parental desire for reduced hazardous walking situations and conveniences; Schools' needs, such as minimum days, girls athletics, field trips for environmental studies; increased programs such as ROP, band shuttles, MGM, magnet schools; and increased enrollment in most of Mid-Placer's schools has added additional demands. A program that has been particularly difficult in other areas is busing for integration. Special education programs for exceptional children have been increased significantly by both federal and state requirements.

In this inflationary economy and era of increased regulation, all items of budget point to substantial increases: labor costs are the most significant; vehicle parts have increased two to three times over their cost in the earlier part of the decade; operational restrictions have been imposed because of new regulations; the upgrading of school bus construction has added significant increases—it now costs $55,000 for a school bus; we have seen insurance costs increased by 450 percent.

In addition to required in-service training, the requirements for school bus driver certification in California are 30 hours of classroom and 20 hours of behind-the-wheel training, in addition to a host of examinations and other personal qualifications. After this training and certification the true test is met at Mid-Placer: 20 hours of cadet driving with real students aboard. During cadet driving the regular school bus driver rides along as an evaluator and to assist the new driver during these first hours of the real thing.

Many maintenance facilities are not meeting today's standards. Cal-OSHA requirements are forcing modernization for employees' safety, and more sophisticated diagnostic equipment and tools are needed. Shadetree mechanics are no longer acceptable in school bus maintenance. School bus fleets are inspected at least once a year by the Motor Carriers Division of the California Highway Patrol and maintenance terminals are rated. There is also a push by government for school bus mechanic certification; certain standards will most likely be required in order to be certified as a school bus mechanic in the future. More specialized training and qualifications to keep up with the technology and requiremens of today will be required.

Most school districts are faced with one of three choices if they wish to maintain student transportation: (1) contract service to a private company. (2) form a cooperative venture, (3) form a joint powers agency. The most commonly used solution is contract transportation. The advantages are a lower capital requirement, fewer district employees, more accurate budget projections, and less district management. The disadvantages are loss of control, higher long term costs, administrative involvement is not eliminated for routing and scheduling, administration of the contract, and the contracts required between schools and parents. Additionally, there is a loss of maintenance facilities for support equipment.

The transportation cooperative combines two or more districts' resources, and is normally operated by a high school district for the feeder schools. The advantages of fixed costs are spread out and, if properly managed, it yields an economical operation. The most significant financial advantage is the pooling (sharing) of the buses, and the routes. The disadvantage is, if it is poorly managed, some districts will withdraw and it will be less attractive to others.

The joint powers agency operates very much like the cooperative except it has its own governing board, offers more comprehensive management, organization, funding basis, and control by the individual districts.

MPPS accomplishments to date have been significant. The Motor Carrier rating was upgraded from a B to an A two years ago, and remains so. The increases in costs have remained below the inflation factor in spite of increased services and mileage experienced because of increased student populations. Driver training has been upgraded, with drivers being evaluated on a regular basis. Emergency bus evacuation drills are held semi-annually. School bus routes are combined when possible, mixing students from different schools and districts. Central purchasing has decreased costs. Bus utilization is increased with most buses receiving close to 8 hours use a day. The pooling of buses has allowed more availability and the demand for an increased number of these expensive vehicles has been avoided in spite of the overall increase in student population. A radio communication system is used for more efficient dispatch, security, and safety for the students. The fleet is being upgraded to use diesel for increased mileage, decreased costs, and reduced maintenance. Other programs include a programmed bus replacement schedule for old buses, to further decrease operational costs; the construction of a transportation center for more efficient operation and maintenance; and additional cost saving programs such as fuel additives, oil analysis for fewer oil changes, and upgrading of management programs. It is estimated that 5600 school administrator man-hours are saved annually because of the agency.

Mid-Placer Public Schools is the first transportation cooperative to operate under a joint powers agreement and is leading the way in cooperative student transportation. School districts are looking toward this agency for guidance and assistance with what appears to be their transportation dilemma. While this agency has not solved every student transportation problem, it has made significant inroads into increased management efficiency, safety, and economical operation for schools and the taxpayer.

ANTELOPE VALLEY SCHOOLS TRANSPORTATION AGENCY
44865 North Third Street East
Lancaster, California 93534
(805)945-3621

- MEMBERS -

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KEPPEL UNION SCHOOL DISTRICT

LANCASTER SCHOOL DISTRICT

WESTSIDE UNION SCHOOL DISTRICT

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INFORMATION REGARDING FORMATION OF ANTELOPE VALLEY SCHOOLS TRANSPORTATION AGENCY

In October 1979 a local group of school management personnel met to discuss alternative methods for providing pupil transportation within the geographical boundaries of the Antelope Valley Union High School District which would meet the following criteria:

1. Provide service equal to or better than that which currently existed.
2. Provide that service at a lesser cost.
3. Provide for cost effectiveness.
4. Provide a more efficient service.

Several methods were investigated and discussed regarding potential alternatives to each District providing its own transportation system. Those alternatives included:

1. A contractual agreement with a private contractor.
2. The High School District providing transportation for all interested elementary Districts.
3. The formation of a Joint Powers Agency.
4. Continue as is.

A steering committee was selected to discuss these alternatives. This committee recommended a feasibility study regarding the possibility of forming a J.P.A. Each school board in the valley was asked to approve the feasibility study and to support it. As a result of this cooperation, a feasibility study was conducted. With few qualifying conditions, the feasibility study was extremely positive, and pointed toward favorable conditions for the formation of a valley-wide Joint Powers Agency for providing school transportation.

As the financial condition of the Antelope Valley Public School Districts continues to worsen as a result of Proposition 13, SB90, and enrollment changes, a very real responsibility for finding alternative funding sources, as well as ways to save money for the District is placed on each of us.

The feasibility study revealed that the High School District, joining with feeder elementary Districts, would provide for the type of transportation system which we set out to investigate.

Please note that cooperative efforts between Districts in this valley are not unique and have worked out extremely well over the years, especially in the area of transportation. Such agreements have been in existance for some time and actually gave impetus to this current effort. Prior to the Agency, at least twenty contracts existed between local Districts for providing pupil transportation services. The Districts had agreements with other Districts for providing:

1. Driver training
2. Radio communication
3. Pupil transportation
4. Bus rentals
5. Providing spare buses
6. Maintenance of vehicles
7. Repair of vehicles
8. Substitute drivers
9. Bus specifications
10. Special Education transportation
11. Clerical time
12. Assistance when other supervisors are not available.

Following is a list showing the advantages of forming a Joint Powers Agency:

The J.P.A. for Pupil Transportation would:

1. Provide for greater flexibility in scheduling.
   a. Grouping starting and ending times of schools within a district by grade level.
   b. Additional flexibility for special schedules.
   c. Fewer restrictions on non-home-school trips.
2. Provide the ability to schedule arrival and departure times that are closer to classes beginning and ending times.
3. Eliminate the hiring of identical personnel by two or more districts.
4. Eliminate indirect costs of transportation, and make them direct costs--in so doing they would become reimbursable. These costs would include functions provided by Purchasing, Payroll, Accounting, Personnel, Accounts Payable, etc.
5. Provide proper staff and equipment to maintain adequate costs accounting on vehicles, thus reducing overall expenses.
6. Centralize purchasing and inventory functions.
7. Permit the maintenance of a larger inventory which would reduce down time.
8. Reduce substantially the amount of "deadhead" mileage on buses.
9. Make new, more efficient shop equipment cost effective. Would also distribute the cost of equipment rather than one district paying for most of it--or duplicating it.
10. Provide the opportunity to better assign mechanics according to skill or expertise for a particular job.
11. Eliminate the many pupil transportation contracts now in existence between districts.
12. Provide uniform pupil transportation policies and procedures for all Antelope Valley students, K through 12.
13. Bring more professionalism to drivers by being able to provide more appropriate and standardized training, in-service, and supervision.
14. Eliminate movement of drivers from one district to another to take advantage of changes in salaries or hours.

15. Upgrade driver training because of standardized policies and procedures. Driver training could become part of the regular workday assignment instead of after hours as is now done. This would speed up the training of drivers considerably.

16. Provide for the creation of an Accident Review Board and better training of supervisors in accident investigation and prevention. This, in addition to related items already listed, would improve student safety on school buses.

17. Provide for possible reductions in insurance premiums for this type of operation.

18. Eliminate duplication of effort by district personnel to keep abreast of changes in Title 13 regarding bus operation. School bus regulations are now proposed and adopted by the California Highway Patrol for inclusion in Title 13 and are not familiar to most school personnel.

19. Improve considerably the ability to research new ideas and provide a stronger voice to represent valley-wide problems regarding pupil transportation.

20. Allow the seeking of funds outside normal reimbursement provisions that are not practical for individual districts.

21. Provide the flexibility to perform mechanical services to districts for equipment other than buses.

22. Completely restructure the replacement schedule of school buses; by removing the 18 oldest buses from service, the JPA concept would provide great flexibility in the replacement of buses.

23. Provide for a reduction in buses and miles traveled which would result in a savings of approximately 50,000 gallons of fuel annually. At the present rate of .9943 per gallon of diesel, this would be a savings of $49,715.

24. Have produced the following percentage reductions in operating expenses during 1978-79 if the JPA had operated as compared to 1978-79 actual expenses:

Total miles traveled	10.9% reduction
Total bus operation expense	26.0% reduction
Cost per mile	16.9% reduction
Cost per bus per day	5.0% reduction
Cost per pupil	25.9% reduction

25. Reduce the overall size of the fleet by approximately 18 buses with an ultimate savings of $1,260,000.

The Antelope Valley Schools Transportation Agency became operational July 1, 1980 as a Joint Powers Agency. There are 4 elementary districts and 1 high school district that comprise the members of the Agency. The Agency is governed by a Board of Directors. Each participating District Board of Trustees appointed an individual to represent them as a member of the Board of Directors.

A. V. Schools Transportation Agency

GENERAL INFORMATION

Agency comprised of five member school districts
Serves 23 schools - K-12
Total ADA - approximately 17,000
Students transported each way - 7,500
Total buses - 71
2 - Type II
69 - Type 1
2 conventional - 67 transit
Area covered - 1680 square miles (45% of Los Angeles County)
Number of employees - 90
Maintenance Shop and Dispatchers staffed for 2 shifts

FUNDING

After the 1980-81 Agency budget was completed, the cost for each participating District was calculated based on their percentage of Home/School mileage compared to the total. This cost is paid monthly or quarterly by the District. All charges for field trips and repairs on non-bus equipment are billed by the Agency each month.

The Agency contracts with the Los Angeles County Superintendents Office for program budgeting and accounting system services. The Agency also works with the County Office the same as any school district with regard to payroll, "B" warrants, income, etc.

PERSONNEL

All district personnel that desired to were employed by the Agency in either the same or a comparable job assignment. The secretary to the director was the only person hired that was not previously assigned to a District Transportation Department.

The Agency has adopted a salary schedule and benefit package for all employees and has contracted with appropriate vendors to provide these benefits.

EQUIPMENT - FACILITIES

All five Districts transferred bus title to the Agency. Credit to the Districts was granted based on the original purchase price in relation to the total. Shop equipment and parts inventory were treated in the same manner.

Presently the Agency is operating in the existing Antelope Valley Union High School District transportation facility. This facility is not adequate and negotiations are in progress to lease additional space from the High School District

The radio systems used by the Districts were somewhat compatible and modifications were made by the Agency to insure two-way radio communication between all agency units.

ROUTING - SCHEDULING

Progress has been made to eliminate duplicate routes, especially in the extreme edges of the Districts. Generally Districts have been able to have uniform starting and ending times for schools within a District, rather than staggered times. It is anticipated that much more can be done for the 1981-82 school year, after we have developed our own data.

After the first month of school operation and the amount of progress made, it can be safely stated the plan is fundamentally sound and will work to the advantage of the participating Districts, the students, and the taxpaying public in general.

ON-LINE COMPUTERIZED SCHOOL TRANSPORTATION
A
COOPERATIVE EFFORT BY PRIVATE ENTERPRISE AND PUBLIC AGENCIES

. In 1977, the San Francisco Unified School District in California realized the potential of the scientific capability of the computer. At that time, with the contracted services of EDGAR Management Consultants, they completed the implementation of a mechanized routing and scheduling system for their transportation department.

. Immediate benefits were soon realized.

*Prior to EDGAR

	No. Routes	Total Hours	Time Mins.
Pickups - a.m.	302	131	25
Deliveries - p.m.	298	144	54
Kindergarten	103	58	10
Total	703	334	29

After EDGAR

	No. Routes	Total Hours	Time Mins.
Pickups - a.m.	274	116	19
Deliveries - p.m.	268	118	30
Kindergarten	105	49	32
Total	647	284	21

Results show a 15 percent decrease in time spent on all pickups and deliveries.

Number of Driver Assignments	Prior to EDGAR	After EDGAR
Pickups - a.m.	116	109
Deliveries - p.m.	116	105
Kindergarten	51	42
Special Education	46	42

*School Bus Fleet Bobit Publications, April-May 1979
This article was prepared for School Bus Fleet by Mr. Dennis Garden, acting transportation supervisor for the San Francisco Unified School District, and Peter Caswell, President, EDGAR Management Consultants.

BENEFITS

. . . due to

A CURRENT INFORMATION DATA BASE

HIGH SPEED CALCULATION (27.5 nano-seconds)

LARGE COMPUTER INTERNAL STORAGE

AN EFFICIENT ALGORITHM

. . . the benefits are

ACCURATE SIMULATION OF BUS FLEET OPERATION BY ROUTING BUSES, BY DIRECTION, THROUGH STREETS AT REALISTIC SPEEDS

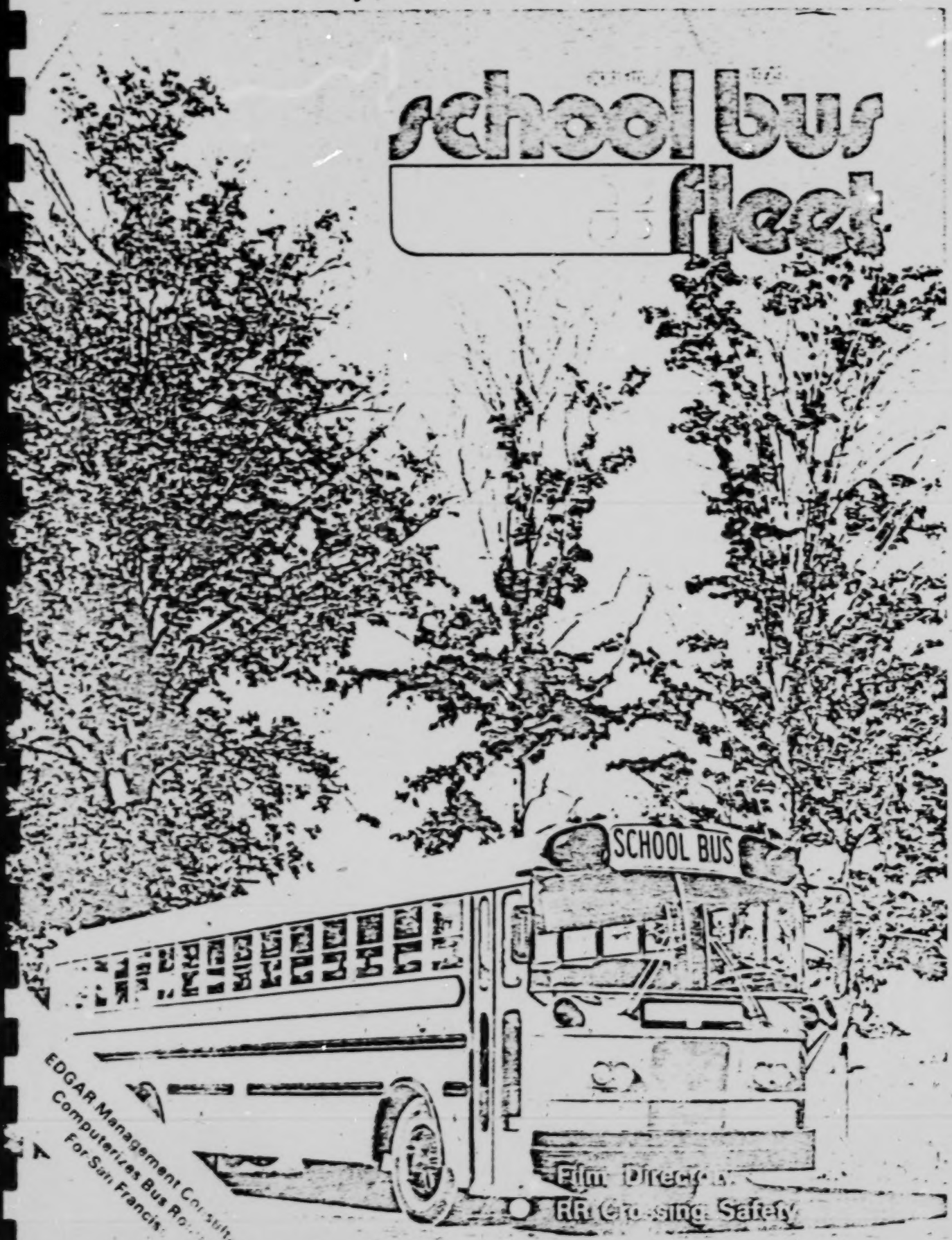
MINIMUM RUN AND DEADHEAD TRAVEL TIME AND MINIMUM NUMBER OF ASSIGNED BUSES

DAILY SCHEDULED RUNS & BUS RUN ASSIGNMENTS WITHIN MINUTES

MAJOR CONTRIBUTION TO ENERGY SAVINGS WITH 15 % REDUCTION IN TRAVEL TIME

8 TO 10% REDUCTION IN BUS FLEET SIZE

school bus fleet



EDGAR Management Consultants
Computerizes Bus Routing
For San Francis

Film Directory
RR Crossing Safety

Computerized Routing For San Francisco

Transportation of San Francisco's school children has been simplified due to services provided by Edgar Management Consultants.

In 1977, the San Francisco Unified School District realized the potential of the scientific capability of the computer. At that time, with the contracted services of EDGAR Management Consultants, they completed the implementation of a mechanized routing and scheduling system for their transportation department. This included the creation and maintenance of a data information base for all schools, students and the street network of San Francisco. It further included the daily production of bus route assignments and schedules for all schools, particularly those providing special education.

Prior to 1977, the management requirements of the SFUSD for transportation included the responsive surveillance of student needs, individual school requirements, dependability of bus service at minimum cost, and the capability to provide accurate estimates of future transportation cost requirements. The transportation department was also under constant pressure to comply with the maintenance of current schedules and driver route assignments.

The SFUSD transportation department provides door-to-door transportation to pre-school through high school special education students (excluding elementary mentally handicapped and educationally handicapped students) to and from 21 schools and four centers in 44 buses. It also provides pickup and delivery of 17,000 regular students, kindergarten to high school, to and from 110 schools in 118 buses, in addition to the provision of buses, "union" drivers and dispatch personnel by an outside contractor over a geographic area of 55 square miles including San Francisco and Treasure Island (located in San Francisco Bay, east of the city).

The SFUSD management requirements included the schedule revisions necessary to carry out major programs such as the major changes required by the handicapped and bi-lingual programs and the shift of teachers and students due to an active earthquake-standards rebuilding program. In addition, an educational redesign program involved the closing of a number of schools and the subsequent redistribution of teachers and students. This demanded a capability of providing accurate estimates of transportation costs to assist the management in the decision-making process.

Serious manpower restrictions in the transportation department affected the activity of the scheduling section, responsible for meeting the complete scheduling and re-routing requirements for the September and January school semesters, in addition to major schedule changes as directed by the SFUSD management throughout the school year. A further complication was the amount of detail required in the updating, revision and provision of schedules and bus route assignments daily (four to ten changes per day). Bus route assignments include full pickup and delivery instruction by time, street, and direction of all turns *(See Run Assignment Report.)*

A breakthrough came in January 1977 when the SFUSD contracted with EDGAR Management Consult-

SFUSD's Rodger Maxwell, special education scheduler, and Janice Skipper, secretary, use on-line terminal in the production of bus routes.

Run Assignment Report

SFUSD TRANSPORTATION DEPARTMENT
- 3

BUS	SCHEDULE	ROUTE BURK			
903	FREDERIC BURK	700	FONT BLVD	2: 0	
	R ON LAKE MERCED BLVD	R ON	SUNSET BLVD	R ON	YORBA ST
	L ON 36TH AVE	L ON	WAWONA ST	R ON	40TH AVE
429	KARUZAIR OZOVAG	2630	40TH AVE	2:14	
	R ON VICENTE ST	L ON	SUNSET BLVD	R ON	ORTEGA ST
482	JONES, VELVEET	3940	ORTEGA ST.	2:20	
	L ON 47TH AVE	L ON	PACHECO ST	L ON	46TH AVE
	R ON NORIEGA ST				
411	BRIONES MONICA	3509	NORIEGA ST	2:24	
	L ON 19TH AVE	R ON	LAWTON ST	L ON	16TH AVE
	R ON LAWTON ST	R ON	12TH AVE	L ON	MORAGA ST
	(etc.)				

ants to install and implement a full, computerized routing and scheduling system. The company implemented the system in two phases: the routing of special education students, and then the routing of the desegregation and integration students.

The initial project, special education, included the development and implementation of data base files for the special ed schools and students and the modification of the EDGAR transportation program package to maintain the daily changes to the files. The program package was further modified to provide the door-to-door pickup and delivery of the special education students at their individual addresses on the right side of the bus. Reports to be supplied to SFUSD, in total by batch processing or individually by demand, included:

- a sequential listing of special education students, pickup and delivery times and minimum, overall travel time,
- driver route assignments with pickup and delivery sequenced by time, street travelled and direction of all turns,
- production of a Bus Route Consolidation Report by the pairing of morning, afternoon, or kindergarten routes with minimal total "dead-head" travel time.

The SFUSD and EDGAR assigned schedule personnel and consultants, respectively, to develop an accurate arterial street network for San Francisco tailored to the SFUSD transportation requirements. Particular attention was paid to bus travel accessibility. The arterial street map included all freeways; ramps; major, intermediate and minor arterial street links; and all one-way streets, prohibited turns with alternate routes, cul-de-sacs, etc.

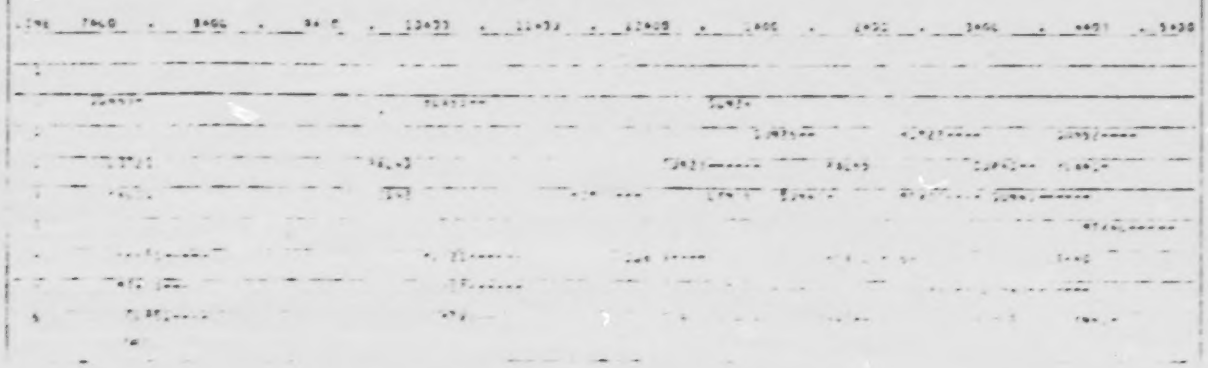
Surveys were taken by type of handicap and student age to determine accurate loading and unloading service time at the pickup and delivery addresses and at the school. Surveys were also taken to determine the average bus speeds by size of bus. The statistics from these surveys were incorporated in the school and student data base for the accurate determination of total time per trip.

The following variables required by the SFUSD were added to the EDGAR program package:

- Selection of peak or off-peak travel time by route and school.
- Provision for separate pickup and delivery location per student.
- Non-standard student loading or unloading service times (i.e., wheelchair).
- Provision for bus capacity by route and school.
- Selection of route limit time for student travel by school.
- Provision for restricted pickup or delivery time per student.
- Provision for override sequence of student pickup or delivery.

All special education student sched

Bus Route Consolidation Report



ules, driver route assignments and route consolidation for bus assignment were completed by September 1977. Feedback from the bus drivers furnished by the consultants and schedulers with errors in street location and direction. These were corrected, data base files revised and new routes issued to the drivers. The consensus of driver opinion was "good," with particular praise for balanced routes.

In January 1978, the consultants and schedulers began work on the implementation of the system for the regular students and the installation of an on-line terminal and interactive software in the transportation department. All schools and intersections (student pickup and/or delivery points) were documented with numbers of students and prepared for the data base files. The on-line terminal, including a CRT scope, keyboard and printer, was installed for maintenance of the data base files and to provide reports for the special education and regular students.

The SFUSD received complete schedules, driver route assignments and bus consolidation reports for the regular students by April 1978. Results were compiled by the SFUSD to measure the performance of the EDGAR program package, prior to and after implementation.

Costs of implementation and daily operation were more than offset by savings in the first year. Costs included the computer rental, consultant charges and the addition of two schedule/dispatch personnel. Results of effective implementation were announced at the SFUSD Board Meeting, January 1979, by Associate Superintendent Milton Reiterman. During 1978, it was announced, the district had realized a direct saving of $300,000.

The benefits of mechanization of the SFUSD routing and scheduling function were the direct result of the current data information base, high speed of calculation and the application of operations research. Benefits include:

- Accurate simulation of bus fleet operation by routing through streets by direction at realistic speeds. Loading/unloading service time per student is included in the calculation of the bus run.
- Minimum travel time and minimum bus utilization is provided by the application of minimum path, cluster and optimum tour algorithms accompanied by linear programming.
- The computer high speed calculation provides run schedules and bus run assignments within minutes at the scheduling office.
- A complete set of run schedules, run assignments and route consolidations can be provided within a one week period.
- Daily updating of the data information base and run report production is available.
- Minimum changes in school schedules can be recommended which result in maximum travel time dollar savings.
- Major shifts in school programs can be absorbed quickly and dollar savings maintained.
- Management decisions can be tested and accurate costs determined prior to implementation.
- Totals of bus travel time, bus miles, route time and bus runs for future [illegible]

TRANSPORTATION DEPARTMENT COMPUTER APPLICATIONS

School District transportation departments presently demand accurate and timely reporting systems to assist supervisors in management and reduce manual calculation and paper flow. The reporting systems 'best suited' to computer applicability include:

Travel Time and Mileage Report, Actual vs. Scheduled.

Bus Driver/Hours Report, Regular and Overtime, Actual vs. Scheduled.

Preventitive Maintenance Schedule Report

Bus Parts Inventory Stock Status Report, Individual and Assembly

Bus Run Schedule and Assignment Report

Student and Intersection 'PU/Del' Report

Bus Route Consolidation Report, Total Travel and Idle Time

One area which demands large calculation, constant revision, accurate information and provides significant cost savings is computerized routing and scheduling. This area will be discussed, in detail, utilizing the present installation, San Francisco Unified School District - Special Education transportation, as an example.

COMPUTERIZED ROUTING AND SCHEDULING -

Larger school districts (40 buses or more) can improve their routing and scheduling function by the use of the computer. The computer provides the tool of high speed calculation and large storage to assist the transportation scheduler in meeting school management and school transport demands.

REQUIREMENTS -

Management requirements include major scheduling revisions, necessary to carry out major programs; such as, changes required by the handicapped, bilingual and integration programs. These also include estimates of future budget requirements due to alternative management plans.

Student transport requirements include a complete scheduling and re-routing for the school semesters (September and January); together, with the major schedule changes requested throughout the school year. It, also, includes the updating, revision and provision of scheduled routes and bus assignments daily for handicapped and regular students.

*Courtesy EDGAR Management Consultants

INSTALLATION -

The initial installation of a computerized routing and scheduling system requires the development of information data bases for the handicapped, segregated and regular students and schools, a district arterial street map, student and intersection loading/unloading service times and bus travel speed by type and student age groups.

The data base for Special Education students includes: Name, address, loading/unloading service time, school name assigned, network location of pickup/delivery, time of pickup restriction, school arrival time, time of delivery restriction and school departure time.

The data base for Regular students includes: Pickup and/or delivery intersection and cross street names, number of students to be loaded, school name assigned, network location of pickup/delivery, time of pickup restriction, school arrival time, time of delivery restriction and school departure time.

The data base for the Schools includes school contact name and address, school name, bus capacity assigned, school arrival and departure times, bus average speed, total number of students and peak or mid-day travel time.

The data base for the School District arterial street map includes: Street name, to and from intersection numbers and geographic coordinates, travel time peak and mid-day, prohibited turns and one-way restrictions.

The information data bases are stored on the computer and daily updating procedures installed for maintaining the daily additions, deletions and changes to the files.

LOAD/UNLOAD AND BUS MPH STATISTICS -

Surveys are undertaken by type of handicap or student age classification, to determine accurate loading and unloading service times at the pickup/delivery address or intersection and at the school. A survey is also undertaken to determine the average bus speeds by size of bus and ages of students transported. The survey statistics are included in the school, student and intersection data bases for the accurate calculation of travel time per route.

SCHEDULING VARIABLES -

Scheduling efficiency is provided to the scheduler by the computer with the application of the following criteria:

Assignment of bus capacity by route or school.

Standard load/unload service times per student.

Assignment of non-standard service time, when required.

Adjustment of bus speed by type of bus or age of students transported.

Assignment of maximum travel time by student.

Pickup/delivery time restriction by student or intersection.

Separate pickup/delivery location by student or intersection.

Selection of peak or mid-day travel time by route.

ROUTING AND SCHEDULING REPORTS -

An initial set of routes are produced for all schools, arrival and departure, which provide a list of pickups and/or deliveries, to and from, the school. The route includes the name and address, service time and the time for the pickup/delivery for Special Education. Regular routes include street name and intersection street name, number of students to be loaded/unloaded and the time of the pickup/delivery.

The bus driver receives a bus assignment including a sequential listing of students-Special Education or intersection names and numbers of students with the time of pickup/delivery. The assignment includes the street names and turn directions to proceed through the school district from stop to stop, to and from, the school.

An additional feature in the couputerized routing system is the route consolidation program, which provides a consolidation of all routes run, to and from, all schools. This program provides bus assignment by routes throughout the day with minimum total dead-head travel time between all routes.

COST SAVINGS -

The scheduler can reduce bus travel time by 15% and reduce the number of buses in the fleet by 8% with the use of computerized routing. Routes are further produced throughout the school year on a daily basis, to reflect daily changes to the transportation requirements. Substantial energy savings are generated due to this reduction. San Francisco estimates annual fuel savings at 26,000 gallons.

BENEFITS -

Computerized routing and scheduling includes the benefits of a current information data base, high speed calculation, large storage and application of an efficient algorithm. These benefits provide the school district with the following:

Accurate simulation of bus fleet operation by routing a bus through streets, by direction, at realistic speeds. Load and unloading service time per student are included in the route calculation.

Minimum travel time and minimum number of buses are provided by application of minimum path, cluster and 'optimum tour' algorithms accompanied by linear programming.

Computer high speed calculation provides scheduled routes and bus run assignments within minutes at the schedulers desk.

A complete set of scheduled routes, bus assignments and route consolidations can be produced within a one week period.

Daily updating of a transportation data base and production of scheduled routes and bus assignments.

Minimum changes in school 'start and dismissal' times can be recommended which result in proven maximum travel time $ savings.

Major shifts in school programs are absorbed quickly and $ savings maintained.

Management decisions can be tested and accurate transportation costs determined, prior to implementation.

Major contribution to energy savings with 15% reduction in travel time.

Totals of bus travel time, mileage and route schedule time for actual bus run time comparison and audit.

OFFICE OF THE LOS ANGELES COUNTY SUPERINTENDENT OF SCHOOLS

PUPIL TRANSPORTATION SERVICES

FOR THE

OFFICE OF THE LOS ANGELES COUNTY SUPERINTENDENT OF SCHOOLS

July 1980

Transportation services are provided for the following programs:

Special Education - home to school; workshops; field trips
Special Schools - community day centers
Regional Occupational Programs

Services are provided by contracts with four private contractors, seven school districts, and by purchasing tickets for use on public transportation systems. Estimated costs included in the 1980-81 Preliminary Budget are:

	Special Education	Special Schools	ROP	Total
Home to school	$7,270,092	$91,062	$	$7,361,154
Workshops	472,153	-	-	472,153
Field trips	67,525	-	-	67,525
School to class	-	-	336,000	336,000
TOTAL	$7,809,770	$91,062	$336,000	$8,236,832

The transportation system required for our special education program utilizes 356 buses — the third largest fleet required by any other school district or county office in California — and covers a geographic area of 3,300 square miles. Approximately 4,354 pupils are picked up at home each morning, transported to 152 sites throughout the county, and are returned to their homes (or alternate locations) in the afternoon. Approximately 800 changes in the bus routes are required each month to accommodate new enrollees, changes of address, changes of babysitters, etc.

PUPIL TRANSPORTATION SERVICES
July 1980

The following 1978-79 statistics illustrate the scope of services required by the five agencies providing transportation for the largest special education programs in the state:

	Number of Special Education Pupils	Number of Buses Utilized	Square Miles	Average Cost per Pupil
Los Angeles Unified	5,570	2,781*	710	$2,108
Los Angeles County Superintendent	4,354	356	3,300	1,162
San Diego Unified	2,751	454*	197	707
Santa Clara County	1,828	135	1,302	1,610
Long Beach Unified	228	154*	129	1,060

* Includes special and regular education buses

At the present time, the Facilities and Transportation Coordinator is responsible for coordinating and monitoring all aspects of the transportation contracts, including approval of all invoices prior to payment. In May 1979, funding was provided under a $40,000 grant from the California Energy Commission and from PL 94-142 funds to develop and implement a computerized bussing system. A contract was awarded to EDGAR Management Consultants to complete the work in three phases at an approximate cost of $800,000.

Phase I - includes the West San Gabriel and southwest geographic areas. There are 1,227 pupils in these areas attending 39 sites and requiring 108 buses. This phase was fully operational for the opening of summer school this year.

Phase II - includes the rest of the county, except for the area north of Newhall, and will be partially operational for the opening of school in September, with the balance to be completed by December 30, 1980.

Phase III - is the area north of Newhall, and will be operational by June 1981.

When the system is fully implemented, four transportation planners and four schedulers will be required to operate the system. EDGAR is currently providing two planners and three schedulers under terms of the contract. As soon as recruitment has been accomplished, the planners and schedulers will become employees of the Office. It is estimated the annual salaries and related benefits for these positions will cost $193,764.

Planners	- four at	$21,252 plus	$4,250 =	$102,008
Schedulers	- four at	19,116 plus	3,823 =	91,756
				$193,764

PUPIL TRANSPORTATION SERVICES
July 1980

Under the computerized bussing system, the Office assumes the functions of routing and scheduling all buses, will process all changes, additions, and deletions of students, will receive and resolve parent requests and complaints. By utilizing the computer data to establish routes based upon shortest/best runs, the bus equipment can be used to achieve maximum benefit.

Preliminary estimates predict a reduction of 15% in gasoline consumption and annual net savings of $500,000. In addition, the computerized system will enable this Office to provide a centralized transportation program for school districts providing special education under the Master Plan should it be requested and prove to be cost-effective.

Prepared by:
Wanda L. Purdy, Director
Division of Internal Business Management

WLP/mh
7/28/80

INTRODUCTION

EDGAR was initially contracted in May, 1979 to develop and implement a computerized bus routing, scheduling and monitoring system for the West San Gabriel and South Bay Special Education transportation function. The work accomplished for this project includes:

Provision of arterial maps for West San Gabriel & South Bay.
Coding of freeway interchanges and arterial streets.
Check coding, key punch, verification of arterials.
Program and test of a comprehensive edit program.
Edit and correction of arterial links.
Expansion of West San Gabriel area to accomodate extension of transportation requirements.
Provision of micro-fiche arterial map plots.
Final correction of arterials and load master file CDC7600 computer.
Speed delay study and application of peak and midday mph to each arterial link.
Design, install and test of micro-computer in LACSS transportation department.
Documentation of present routing and scheduling system at Russell and Pinetree bus contractors.
Development of LACSS routing, scheduling and monitoring requirements.
Definition of duties and responsibilities for LACSS Transportation Planner and Scheduler.
Load/Unload and Bus Average Speed Study.
Approval by HEW for utilization of the CDC7600.
Documentation of student pickup and delivery locations by school by area.
Documentation of school runs and run restrictions.
Development and test of micro-computer software.
Modification of routing and scheduling programs to meet LACSS requirements.
Provision of reports as follows:
- Master arterial link listings by area.
- Master run identification files by area.
- Student pickup/delivery locations by area.
- Run schedules and bus assignment routes - West San Gabriel area.

The continuing phase includes:
- Run schedules and bus assignment routes - South Bay Area
- Permanent Change procedure - School to LACSS to contractor.
- Daily scheduling - Manual
- Run consolidation and road test of routes.
- Implementation of routes.
- Accounting and monitor of routes.

COST AND SAVINGS PROJECTION

The net $ savings projection for the Los Angeles County Superintendent of Schools by implementation of EDGAR is as follows:

Fiscal Year	$ Costs	$ Savings	$ Net Savings
1978/79	$ 40,367	$ 0	$(40,367)
1979/80	120,708	85,333	(35,375)
1980/81	72,600	128,000	55,400

Fiscal Year		$ Savings
1978/79	Implementation	$ 0
1979/80	Implementation & Utility	85,333
1980/81	Utility	128,000

Savings are calculated at an estimated $ annual cost for reduction of buses. Experience dictates an 8% reduction in number of buses upon completion of implementation. A reduction of 8 buses at an average cost of $16,000 equals $128,000 per annum. FY 1979/80 $ savings at 8 months equals $85,333.

All costs and savings are conservative. Past experience dictates a further increase in savings will be experienced throughout the school year.

The San Francisco Unified School District has presented at their board meeting, January 1979, a $300,000 savings by use of EDGAR in the past year and half.

BENEFITS

The benefits of mechanization of the Los Angeles County Superintendent of Schools routing and scheduling function are the direct result of a current information data base, high speed of calculation and a state-of-the-art operations research application. These benefits include:

Accurate simulation of bus fleet operation by routing through streets by direction at realistic speeds. Loading/Unloading service time per student is included in the calculation of the run.

Minimum travel time and minimum bus utilization is provided by the application of minimum path, cluster and optimum tour algorithms accompanied by linear programming.

Computer high speedprovides run schedules and bus run assignments within minutes at the scheduling office.

A complete set of run schedules, run assignments and route consolidations can be provided within a one week period.

Daily updating and report production is available.

Minimum changes in school schedules can be recommended which result in maximum travel time $ savings.

Major shifts in school programs can be absorbed quickly and $ savings maintained.

Management decisions can be tested and accurate costs determined prior to implementation.

Totals of bus travel time, bus mileage and route time are available for actual run comparison.

Travel time reduction of 15% and bus reduction of 8% will be realized. Costs of implementation and continuing costs should be fully recovered within two years after initiation of project.

Scheduling efficiency is improved with the following:

- bus capacity by run or school
- standard load/unload service time by student
- assignment of non-standard service time, as required
- adjustment of bus speed by run or school
- over-ride of 'optimum' routing, when necessary
- maximum travel time per student by run or school
- pickup/delivery time restriction by student
- separate pickup and delivery location by student
- selection of peak or off-peak travel time by run or school

EDGAR LEASE PROGRAM

School/Student listing by school by student

Student listing by surname

Student listing by sequence number

Master arterial network update

Master arterial network listing by link

Master arterial network plot - microfiche

Temporary arterial link edit with Master network

School/Student edit with Master network

Master arterial network update with temporary links

Minimum travel path through Master network

Run cluster and travel time optimization report

Bus run assignment with minimum travel time path report

Route consolidation with travel time (dead-head) minimization

Route consolidation sort and graph report

Terminal interactive program - Update, run and run assignment reports

EXHIBIT I.

TRANSPORTATION DEPARTMENT COMPUTER APPLICATIONS

TRAVEL TIME & MILEAGE REPORT, Actual vs. Scheduled

BUS DRIVER HOURS REPORT, REGULAR & OVERTIME, Actual vs Scheduled

PREVENTITIVE MAINTENANCE SCHEDULE REPORT

BUS PARTS INVENTORY 'STOCK STATUS' REPORT, Individual & Assembly

BUS RUN SCHEDULE & STREET ASSIGNMENT REPORT

SPECIAL EDUCATION & REGULAR STUDENT 'PU/DEL' REPORT

BUS ROUTE CONSOLIDATION REPORT, Total Travel & Idle Time

EXHIBIT II.

COMPUTERIZED ROUTING & SCHEDULING MANAGEMENT REQUIREMENTS

MAJOR PROGRAM RESCHEDULING -

HANDICAPPED - Mainstreaming, etc.

BILINGUAL PROGRAMS

DESEGREGATION & INTEGRATION

MAGNET, ALTERNATIVE, ETC. SCHOOL PROGRAMS

ANNUAL RESCHEDULING -

SEMESTER, Fall and Winter

SUMMER SCHOOL

PERIODIC RESCHEDULING -

MAJOR SCHEDULE CHANGES

DAILY SPECIAL EDUCATION & REGULAR CHANGES

EXHIBIT III.

INFORMATION DATA BASES

SPECIAL EDUCATION FILE, by School -

Name, Address (Pu/Del), Load/Unload Time, School Arrival/ Departure Time Restrictions & Network (Pu/Del) Location

REGULAR (INTEGRATION) FILE, by School -

Intersection & Cross-street Name, Number of Students (Pu/Del), Arrival/Departure Time Restrictions & Network (Pu/Del) Location

SCHOOL IDENTIFICATION FILE -

Transportation Contact Name & Address, Bus Capacity Assigned, Arrival & Departure Time, Bus Average Speed, Total Number of Students, and Peak/Mid day Travel Time

DISTRICT ARTERIAL STREET MAP -

Street Name, To/From Intersection Number and Geographic Coordinates, Travel MPH - Peak and Mid day, Prohibited Turns, One-Way, Cul-de-Sacs, etc.

EXHIBIT IV.

TRANSPORTATION SCHEDULING VARIABLES

ASSIGNMENT OF BUS CAPACITY BY RUN OR SCHOOL

STANDARD LOAD/UNLOAD SERVICE TIME PER STUDENT

ASSIGNMENT OF NON-STANDARD SERVICE TIME PER STUDENT

ADJUSTMENT OF BUS SPEED BY TYPE OF BUS OR AGE OF STUDENT

ASSIGNMENT OF MAXIMUM TRAVEL TIME PER STUDENT

SEPARATE PU/DEL LOCATION PER STUDENT OR INTERSECTION

PU/DEL TIME RESTRICTION PER STUDENT OR INTERSECTION

SELECTION OF PEAK OR MID DAY TRAVEL TIME BY SCHOOL OR ROUTE

OFFICE OF THE LOS ANGELES COUNTY SUPERINTENDENT OF SCHOOLS

BACKGROUND INFORMATION

APPLICATION
FOR
FUNDING LOCAL ENERGY PROGRAM-TRANSPORTATION SYSTEMS MANAGEMENT

The Office of the Los Angeles County Superintendent of Schools conducts a special education program for approximately 4,000 physically and mentally handicapped children and youth who reside within Los Angeles County. Because of the nature of the handicaps, the pupils are transported from their homes to the schools of attendance as required by law.

Schools and classes are operated at approximately 180 sites throughout the County. Each pupil is enrolled in the special education program which will provide optimum educational benefits. Therefore, often times the school of attendance is some distance from the pupil's home. In addition, the mobility rate for these handicapped pupils has historically averaged 25% per year.

In the interest of economy and efficiency, it was determined in the early 1970's that special education transportation service would be best handled by private firms. The County Superintendent is currently contracting with 4 private firms to transport pupils in the 10 zones of the County. In some remote areas, such as the Newhall-Saugus and Lancaster-Palmdale areas, we have also contracted with school districts to provide all or a portion of the required service.

Although the largest percentage of the transportation service is operating satisfactorily, it has been determined that an automated routing, scheduling and monitoring system will greatly enhance the efficiency of the service. Installation of such a system will provide benefits as follows:

- Reduced bus travel time
- Reduced miles-per-day per route
- Increased bus utilization
- Reduced costs
- Increased parent satisfaction

The cost of providing transportation service for the 1978-79 school year was approximately $6,000,000. It is obvious that as the pupil transportation expands as a result of Public Law 94-142 (Education for all Handicapped Act) and the Master Plan for Special Education and resources are decreased as a result of Proposition 13, it will become extremely difficult for the County Superintendent to provide the mandated transportation service. In addition, inflation will continue to contribute to the problem. It is for these reasons that the Office of the Los Angeles County Superintendent applied for funds from the California Energy Commission to develop and implement a computerized system of routing, scheduling and monitoring school busses for the special education program.

1. PROJECT OVERVIEW

Give a brief description of your proposal, which will give a coherent summary of your project. Include what you hope to accomplish; why it needs to be done; why it needs California Energy Commission support; and when you intend to start your project if it receives funding.

Develop a computerized bus scheduling, routing and monitoring system to increase efficiency of home-to-school transportation of approximately 4,000 pupils who reside in Los Angeles County and attend special education schools and classes at the 180 school sites operated by the County Superintendent. This home-to-school transportation is required by law.

The basic computer programs are written and tested and the system is operating successfully in San Francisco. It is necessary to create the data base to include all decision variables required to implement the system on a pilot basis in the South Bay Region of Los Angeles County. A significant portion of the required input data is available in the County Superintendent's address reference file.

Automated routing, scheduling and monitoring is required in order to reduce costs and increase efficiency of the transportation program. This is particularly important as resources become less available due to Proposition 13 and the cost of transportation increases due to inflation.

If the request for funds is approved, it is anticipated that the system would be expanded to include the entire County. If this is done, the system could also be utilized by school districts in the County for regular transportation, desegregation programs involving bussing, including the much publicized Metropolitan Desegregation Plan.

It is expected that the project development activities would begin upon receipt of a grant from the California Energy Commission.

2. PROJECT TASKS

List specific tasks to be performed. Detail all aspects of the project-administration (e.g., hiring staff, fiscal planning); program development (e.g., literature search, inventory and analysis of alternatives); implementation (i.e., actually carrying out the project); and evaluation (e.g., monitoring ongoing work, analyzing actual energy impacts). Identify which tasks will be perfomed with California Energy Commission funding.

PROJECT TASKS

1. Contract with Edgar Management Consultants for license of existing computer programs and expert assistance in developing the data base.

2. Modify existing computerized address reference file to provide the framework for the data base.

3. Collect required input data such as school start-stop times; student addresses; site addresses; development of arterial link files including major and minor links (freeways, roads, streets, cul-de-sacs, one-way streets, etc.); calculation of average travel time via each major and minor link; scheduling; routing and testing.

4. Training of staff to implement the program.

5. Lease terminal and contract with the Federal government for use of the CDC 7600 located at the Lawrence Berkely Laboratory.

6. Implement the system in the pilot zone.

STAFF

1. No additional staff will be required. Administration of all project activities will be the responsibility of the Facilities and Transportation sections of the Office. Clerical support and on-going data input and report analysis will be handled by existing staff during this phase of the project.

EVALUATION

1. It is estimated that implementation of this sytem will decrease the total cost of special education transportation provided by the County Superintendent by 9% or $480,000.

2. This system has a proven record of reducing miles traveled by 15%.

3 The service will improve significantly thereby increasing parent satisfaction with the transportation program.

3. PROJECT DELIVERABLES

List, in order of "delivery," all products, reports, etc., that will actually be submitted to the Commission as part of this project; list also workloads, services and activities that will be performed by a specified time within the project (quantify—e.g., 40 home energy surveys by seventh month of project). These deliverables will be used to measure work performance/progress when you invoice us for payment.

1. Periodic progress reports as indicated in the Project Schedule.

2. Copy of computer listing of all major and minor links in the pilot zone and bus routes traveling the links, including route times.

3. Copy of comparitive data report including statistics on the transportation system before and after the implementation of the system.

4. See Project Schedule for times for completion.

4. PROJECT EVALUATION

a. Indicate how you will monitor the progress of your project. Is your project flexible enough to allow for modifications found necessary by this ongoing evaluation (e.g., discarding unsuccessful outreach strategies and building on ones that have proven successful)?

The system to be installed by EDGAR Management Consultants has proven to be a reliable method for reducing costs of transportation and improving efficiency of the operation.

Development of the data base will be monitored by a member of the County Superintendent's staff assigned to assist the Contractor in data collection and input.

b. Estimate the amount of energy your project will conserve or the amount of alternative energy use it will encourage (use units applicable to your project, e.g., kilowatt hours per water heather insulated and total water heaters to be insulated). How will you monitor actual energy impacts from your project?

Based upon historical reduction in miles traveled after implementation of the system, the following estimated savings will be realized each year.

Miles reduced per year	2,244,420
Gallons of gasoline reduced per year	376,000 plus oil, tires, lubrication and related petroleum products

It should be noted that these savings are based upon the County Superintendent's special education transportation only. If the system is implemented by school districts in the County, significant additional reductions will be achieved. These savings will be documented through monitoring of actual costs of the service as reported each month.

5. PROJECT STAFF

Identify by name and position (if applicable) the project manager(s) and principal staff. Indicate qualifications of each person; you may attach resumes if more convenient.

1. Mr. Gordon Madden - Assistant Director, Division of Internal Management

   Administers the functions required to support the educational program including management of facilities and transportation.

2. Mr. Carl Soderquist - Facilities Analyst

   Responsible for staff involved in the operation of the transportation program, including administering the contracts for transportation.

6. SUBCONTRACTORS/CONSULTANTS

If you intend to use subcontractors, what will be their tasks, costs and how will they be selected?

EDGAR Management Consultants were previously selected by the County Superintendent as the Contractor who could provide the most comprehensive service to the County Superintendent.

The Contractor will be responsible for modification of computer.

7. COMMISSION STAFF SUPPORT

Will you require any assistance from Commission staff for your project? If yes, explain what and why?

No.

8. ENVIRONMENTAL CONSIDERATIONS

Briefly describe the expected environmental consequences of your project.

The direct reduction of 15% travel time and reduction of 30 buses will reduce, correspondingly, the consumption of gas and oil in the thousands. This is a direct reduction in the amount of exhaust by products which affect the environment.

9. SCOPE OF WORK

Does your proposal represent a single project, or is it part of a larger transportation systems management program? If the latter, please briefly describe program.

This phase of the project will encompass one geographical region in Los Angeles County. It is anticipated that the system would be utilized to route, schedule and monitor transportation services in the remaining nine geographical regions.

10. AREA OF APPLICATION

Is your project (and program, if applicable) a facility, local, regional, or corridor level measure? Please explain.

Regional - see above #9.

11. PROJECT IMPACTS

Are energy benefits from project/program seen as short-term or long-term? If short-range, what is impact in the long-term -- positive, negative, neutral? Please explain.

Long-term.

12. IMPLEMENTATION FUNDING

What other funding sources will be used for this project? Please list sources, amounts, and degree of certainty (of particular interest is funding for actual implementation of project).

It is anticipated that the County Superintendent will provide funds to implement the project. These funds will be appropriated from the State categorical funding for special education programs. It is possible that additional Federal funding will be sought.

In addition, the system will be run at the Lawrence Berkeley Laboratory on the Control Data 7600 system owned by the Automic Energy Commission. By utilizing this computer system, the County Superintendent will save approximately $240,000 per year in computer costs.

13. PRIVATE RIDESHARING ORGANIZATIONS ONLY

a. What is the history of your organization? How long have you been organized and incorporated? Give a brief listing of past actions, including dates and degree of success.

b. What agencies/groups or officials in your community will publicly support this project?

All school districts being served by the County Superintendent's special education program will support this project. In addition, staff and administration of the special education program and parents and pupils are very enthusiastic.

SHAPED

INSURANCE ACQUISITION

As a result of the insurance crunch in the mid-70's, when school districts throughout the county were virtually cut out of the market, or found it extremely difficult to find insurance, the Office of the Los Angeles County Superintendent of Schools determined a need for insurance management services for their school districts.

The districts, at the time, requested assistance and were provided this assistance to a limited amount. The Office of the Los Angeles County Superintendent of Schools set forth the parameters required for a professional insurance man to become a member of their staff in the Division of Business Advisory Services.

In 1978, they hired Len Bois as a Risk Management Coordinator for the 95 districts within Los Angeles County. One of the initial studies done by the Risk Management Department was that of determining the amounts of money spent on fire and liability premiums by the county schools. We determined that the county spent approximately $17,585,454 for fire and liability coverage. An interesting outcome of this study was that some districts pay as low as $11.71 per ADA while other districts pay as high as $119.69. Part of the discrepancy in premium is because insurance companies have what is called "minimum premium charge" so that every small district will actually pay more per ADA than a larger district merely due to the fact that they are small; and, because there are certain costs associated in acquiring the insurance by the insurance carrier.

Recognizing the need to cut insurance costs, several things have been done by the school districts to date. One is the establishment of JPA's for workers' compensation and some JPA's for fire and liability. However, the spread of the risk for fire and liability is questionable at this time.

TERMS

Beforegoing on, we should define some insurance terms that you may or may not be familiar with.

1. JPA (Joint Powers Agreement)

   A JPA exists when several school districts agree to pool their insurance exposures either on a risk sharing or other sharing basis. Members of the JPA agree to abide by the terms and conditions of their agreement. Such conditions may restrict their purchase of insurance from one vendor and may seriously limit their ability to deal with other vendors other than the service organization originally putting the plan into effect. JPA's have taken many forms in California; the primary ones being in the area of workers' compensation.

2. Deductible

   Many of you are familiar with deductible. A deductible is basically the amount the school district is liable for prior to the insurance company taking over the loss. A good example is the $100 deductible on a collision policy such as a personal auto policy.

3. SIR (Self-Insured Retention)

   Many districts use the word "self-insured retention" and "deductible" as synonymous. However, there is a vast difference between the two. Under a deductible program, the insurance company is responsible for the cost associated with adjusting the claims including loss adjustment expenses, field investigation, legal fees, etc. Under a self-insured retention program,

the insured school district is subject to only the above expenses as long as the claim is under their self-insured retention. We have seen, in many cases, where the cost of adjusting a claim actually exceeds the payment made to the claimant.

The basic concept of insurance is to spread the risk among a large number of locations so that no one locality will suffer in the event of loss. One of the basic problems we have encountered is school district attempting to form JPA's with only a few districts being involved. This is a potentially dangerous situation, which was pointed out to the school districts. Several school districts have expressed a need, in our assessment survey, for a group purchase plan as opposed to a JPA to remedy this potentially dangerous situation.

Why Needed

The problems which precipitated the use of either pooling or group purchase as an approach to risk funding developed into a crisis in 1974-75. During this time, the long established doctrine of "sovereign immunity," that "the king (government) can do no wrong," was rapidly being eroded in a number of states. Up to this time, this concept, as interpreted in most court cases, allowed governmental entities (school districts) to be free of any liability based upon their "government functions" as opposed to "propriety functions."

Today, most social engineers have professed the social and legal belief that government is better able to bear the burden of its tortious conduct than the injured party. At present, 10 states still cling to the concept of "sovereign immunity."

While the public may feel that abolishment governmental immunity is a more equitable situation, it has led to a problem of affordability and availability of insurance to school districts. This combination of factors coupled with inflation, claim consciousness of consumers, and the public limitations (Proposition 13) against school district spending have resulted in districts, large and small, suffering from a lack of affordable insurance.

Precedents

In 1903, Great Britain-organization formed "Municipal Mutual Insurance Ltd." originally formed to write fire insurance. At present, 410 of the 422 local governments in Great Britain and Wales insure at least part of their fire and liability with this organization. In Germany, 20 such pools have been in existence for the past 100 years. Also, there are such pools in Belgium, Denmark, Ireland, and New Zealand. The most recent example of pooling is the French Mutuelle Des Collectivites Locales (SMACL) formed in 1975.

Benefits

Pooling allows school districts to combine so that the total exposure base is large enough to make losses more predictable. By combining, the uncertainty or risk can be reduced because a large exposure base will yield more credible predictions. Simply stated pooling allows school districts to self-insure individually a portion of risk, insure another portion through the pool members on a reciprocal basis, and insure their catastrophic losses via a pool, or individually, or collectively through excess insurance. Members of a pool can exert pressure on vendors to avoid or reduce the acquisition costs of the insurer. These loading factors would otherwise be paid in a conventional insurance program.

Other Reasons for Pooling

1. Improved Access to Insurance Markets

   Excess insurers have considerably more freedom from government regulations than do admitted insurers and more flexibility in coverage and rating.

2. Lower Costs

   Potential areas of reduction are:

   a. Lower overhead.
   b. Flexibility of excess insurers underwriting.
   c. Economy of scale.

3. Improved Scope of Protection

   Better bargaining position because of higher SIR (self-insured retention). See article "Reasons for Pooling."

What Do You Need to Know or the Major Considerations for Pooling or Group Purchase

1. Is there a need for an alternative to conventional insurance?

2. Is the base of the risk broad enough to spread the risk? Joint Powers Agreements or pools of two or three districts do not spread the risk. Possibly a group of 10 districts with a combined premium in excess of $1 million may be considered as a guideline.

3. Form or join a group that is interested in pooling. All members must have a long term commitment (3-5 years) to the concept. Here I might suggest that you contact not only school districts who are interested, but possibly there is already a municipal sharing group within your community.

4. Fiscal feasibility: review such items as costs, claims administration, loss prevention, etc.

5. If you are forming a new entity, develop a Joint Powers Agreement (JPA), a pooling arrangement, or a pooling agreement.

CAUTION

Many districts have realized a tremendous savings in the area of workers' compensation insurance. They are, with the benefit of vendors, being sold a concept of self-insuring fire and liability. However, I feel that a strong caution is in order as workers' compensation is a highly predictable item in the area of claims and costs. Most workers' compensation laws in the United States have limits as to the amount to be rendered to the injured employee. However, in the area of liability there is no limit to what the injured party may receive from a court. We have seen tremendous verdicts within the past 5 years. In the area of fire insurance, we have seen rising costs in construction and replacement of equipment. Caution should be exercised before considering self-insuring in these areas.

What is the Alternative to Self-Insuring, Joining a Joint Powers Agreement, or Pooling?

Many school districts are rather hesitant to form or join a JPA for some of the following reasons.

Joint Powers Agreements have been formed in California by school districts, or at the selling of vendors on a narrow base. This is to mean that the base or spread of the risk is not sufficient to protect the districts involved. An example of such a situation posed by a vendor was the combination of a high school district with an extremely bad loss ratio with two elementary districts. This was to be the total JPA. As you can see, the two smaller districts would have been exposed to tremendous losses. It is my suggestion that districts examine carefully the geographic and demographic spread of risk and also the size and capacity of the Joint Powers Agreement.

Another example where Joint Powers Agreements have failed is when they were not constructed on a sufficient compatibility factor. The case where a large district, the largest in the Joint Powers, was contributing 67% yearly of the premium yet at the end of two years had only received 40% yearly of the benefit. In this particular case, this large district withdrew from the Joint Powers Agreement and decided, because of their size, to take a larger deductible and self-insure some exposures.

Because of the aforementioned, some districts have looked to an alternate to pooling, or Joint Powers Agreement. They have gone to what they feel is an alternate method and this is the group purchase, possibly the most overlooked alternative.

What are the Benefits of Group Purchase?

1. The group, by its very size, has greater buying power which equals savings.
2. There's a greater fund of knowledge through group members and professional expertise.
3. Insurance is removed from political consideration.
4. A large group will receive a better reception in the market place if they have a large bag of money as opposed to each district attempting to purchase from separate vendors.
5. Each district can set what it feels to be a reasonable deductible within their budgetary constraints.
6. Members of the group purchase plan can get together, review and select a vendor who will give them "more cluck for their bucks."

As an aside, most school districts would prefer a straight deductible as opposed to a SIR program. Under a deductible program, the district selects either $500,000, $10,000, etc., as being their area in which they could survive should a loss occur (deductible). They know they would have to pay $10,000 on each and every loss. If the district were to go to an SIR program say with a $10,000 SIR, they would have to pay $10,000 for every loss (subject to stop loss insurance), plus all costs associated with that loss. This is the big point most vendors fail to mention in selling the SIR program. These losses include but are not limited to adjusting expenses, appraisal expenses, legal expenses, which can be substantial, and any other expenses associated with determining the loss and concluding it.

How Does This Work in Los Angeles County?

In Los Angeles County, an assessment survey as to insurance needs of districts was made and several districts expressed an interest in group purchase of insurance as opposed to a JPA (Joint Powers Agreement).

Headed by Len Bolis, Risk Management Coordinator of the Office of the Los Angeles County Superintendent of Schools, and with the assistance of Mr. Mike Patterson, Risk Management Director for the Hacienda La Puente Unified School District, a group of six school districts was formed with one common goal--to obtain the best coverage at a reduced price. The total amount of the 1979-80 premium was $839,815. The program was set-up in the following manner:

- An organizational meeting was held in April, 1980.
- Areas of coverages to be provided by the group purchase were:

  Casualty Coverage

  To include (ideal policy)
  - comprehensive general liability
  - personal injury liability
  - contractual liability/blanket limited, broad form
  - property damage, incidental medical malpractice
  - extended bodily injury coverage for intentional torts
  - "persons injured" include: student organizations, products liability, authorized corporal punishment, 60 non-cancellation except for non-payment.
  - D & O (directors and officers) and E & O (errors and omissions)

  We might wish to include:
  - limited worldwide products coverage?
  - nurses, psychiatrists, psychologists, limited malpractice in excess of $_____? (limits set by each district)
  - first aid to guests and students limited to $250?

  Excluded:
  - trampolines
  - inverse condemnation (in real property law, when the property or an owner is taken inversely for public use, without his benefit, but upon the award of payment of just compensation, similar to a force sale and the condemner stands toward the owner as buyer toward seller).

Fire Coverage

To include:

- structures
  - stipulated value vs. co-insurance
- personal property
- business interruption
- extended coverage (musical instruments)
- all risk

Possible inclusions:

- vandalism, if included, what level of deductible?
- waiver of the requirement to build on same site
- consideration of building code changes (if stipulated value not needed)

Exclusions:

- trampolines, steam boiler, nuclear and war exclusions, and earthquake

- Next, the districts were asked to submit their broker's name if they wished them to participate in the program
- In May, survey forms were sent to the districts and four vendors were interviewed. Two vendors were selected from this main interview and given the data on the districts.
- On June 15, the two selected vendors presented a brief overview of what they had been able to obtain in the market with each district's premium quote.
- The premium quotes were:
  vendor #1: $700,282 or a savings of $ 69,533
  vendor #2: $644,296 or a savings of $195,519
- The savings per district varied from 15% to 43% with the savings on the average being in the neighborhood of 27%
- By June 24, all participating districts indicated, in writing, their intention to purchase on a group basis.

The past year was a "soft market year" for insurance purchases. The savings were obtained by being able to permit an insurance carrier a good size premium. School districts were provided with coverage that had been previously provided by their individual carriers.

asically, not only were we able to obtain a reduced premium, but we were also able to obtain greater areas of coverage not previously provided. This was done by:

1. Increasing liability limits from $5,000,000 to $10,000,000

2. Decreasing the deductible for some districts

3. Providing operations interruptions coverage (this type of coverage provides funds for the school district to operate should they lose a building or site; the coverage would provide additional funds for portable classrooms, telephone lines, office equipment rental, etc.). Many districts did not carry this particular coverage and the policy selected provides this coverage to all districts in the amount of $500,000 per district.

FUTURE OF RISK MANAGEMENT

The Office of the Los Angeles County Superintendent of Schools has had the foresight to evaluate the needs of the districts in the area of risk management. We have obtained funds, which will be available to districts for risk management studies.

We have, at the present time, formed a Risk Management Advisory Committee and will be bringing in risk managers, business managers, and assistant superintendents to discuss what they feel is their requirement in the area of risk management. We will be looking at such aspects of insurance as self-insurance of a portion of the fire and liability insurance, larger deductible in the area of fire and liability, possibly underwriting (self-insuring) a portion of the health and welfare benefits.

At the present time, it is our feeling that the next crisis will come in the health insurance field. We are already seeing increases in the area of 30%-40% in health premiums. It is our hope that through creative insurance programming we can assist small and medium size school districts in obtaining a better product at a reduced cost.

For additional information, you may wish to contact Mr. Leonard H. Bois, Risk Management Coordinator, at (213) 922-6557.

WEEK OF SEPTEMBER 22, 1980

business insurance

update:

Fred S. James forges new U.K. broker link

CHICAGO—Fred S. James & Co. Inc., the fifth largest U.S. commercial insurance brokerage, will soon acquire a controlling interest in U.K. and Lloyd's of London brokerage Wigham Poland Holdings Ltd.

The agreement in principle calls for James to pay more than $5 million in

Continued on next page

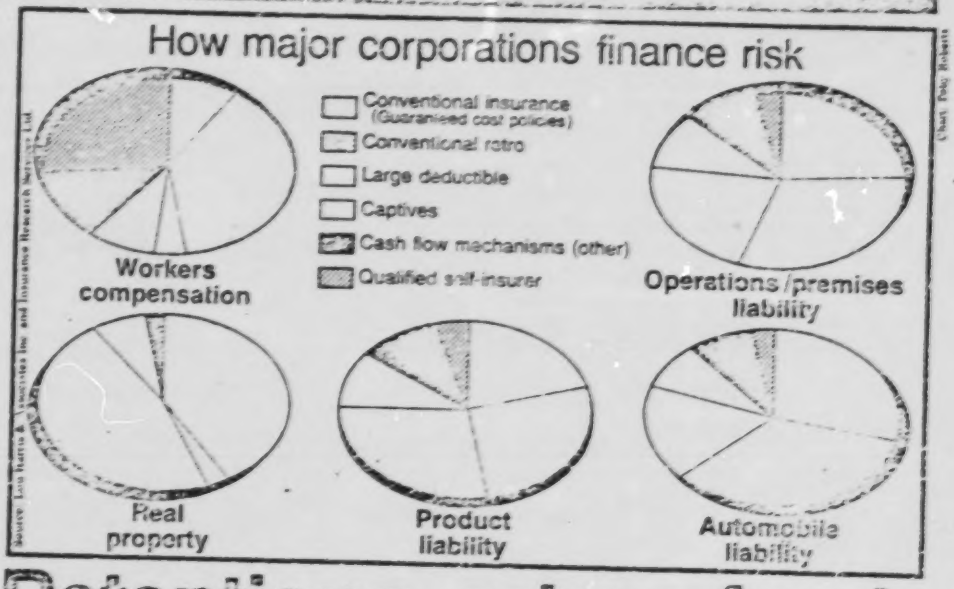
International report

Honeywell-Netherlands

Multinational insurance programs can be tricky, but five company profiles point the way: Page 13.

Risks are growing in the Far East, but risk management techniques are lagging: Page 26.

British reserve makes London underwriters cut rates to slow exit of U.S. risks: Page 32.



Retentions, retros fund major risks: Survey

By KATHRYN J. McINTYRE

Risk management programs in major U.S. corporations:

- Most often use large deductibles, captive insurance companies, cash-flow programs and self-insurance to fund most risks.
- Use conventional retrospectively rated insurance policies more often than any other single risk-financing mechanism.
- Mostly snub conventional guaranteed-cost insurance policies, except for property risks.
- Retain more domestic than foreign risk exposures.
- Are heavily centralized, but more for domestic than foreign operations.

These are among the findings of a study conducted by pollster Louis Harris & Associates Inc. and Insurance Research Services Ltd. of Philadelphia for eight insurance companies and broker Johnson & Higgins.

The study summarizes the risk-financing and risk management administration practices of 938 major U.S. corporations for five major risk categories, providing the best documentation to date of corporate risk management techniques.

The results, based on field work conducted in February 1979, have been closely guarded by the subscribers under an agreement not to release the report outside their organizations.

A copy of the report was given last week to Business Insurance.

It shows risk managers mix and match funding techniques for various risks, with no one technique consistently applied to all corporate risks. And risk managers in major corporations don't agree on which risk-financing technique works best for which type of risk.

Designed to help the insurers and insurance brokers plot their marketing strategies, the study contains an obvious bias toward the use of insurance products by corporate America.

The analysis of risk-financing techniques, for example, probes into only the predominant risk-financing mechanism used in six major categories of risk. This qualification somewhat limits the analysis of corporate use of captive insurance companies and self-insurance, non-insurance product risk-financing techniques that have gained popularity as less costly than insurance. (Captive use was further probed. See story, page 69.)

The study makes it clear, however, that guaranteed-cost policies are snubbed as the predominant financing technique for any risk in more than half of the surveyed companies.

bi exclusive

Only for property risks is guaranteed-cost insurance still a strong risk-financing technique, used by 42% of the companies. But another 48% said large deductibles were the predominant risk financing technique for property risks.

Thirty percent of the companies buy conventional insurance policies to fund their automobile liability risks. Twenty-five percent buy conventional insurance policies to fund operations-premises liability risks.

Probably reflecting high prices for product liability insurance, only 20% of the companies said they buy conventional product liability insurance. Only 9% report buying conventional insurance policies for workers compensation.

Continued on page 68

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Levi Strauss tailors benefits
Page 3

Candidates ride opposing platforms
Page 3

NEWSPAPER

Retentions, retros finance risks

ontinued from page 1

Risk managers prefer conventional retrospectively rated insurance policies (or most of their corporate risks. Conventional retro plans provide loss-sensitive rating of an insurance policy. The ultimate premium for a year depends upon losses but is limited by a minimum and maximum cost.

Conventional retros are used most often to fund workers compensation risks, by 42% of the companies. Only qualified self-insurance rivaled conventional retros for workers compensation risks, with 29% saying they most often qualified as a self-insurer for workers compensation.

About a third of the survey respondents use conventional retros to insure automobile liability, operations/premises liability and product liability risks.

But only 15 companies, or 3%, say they buy conventional retros to fund their property risks.

About 29% of the companies buy retros for product liability risks, the same percentage finance product liability risks under a large deductible. The study, however, doesn't define large deductible.

Large deductibles are also taken on operations/premises liability risks by 22% of the companies.

Only 18% of the companies say they consider large deductibles the predominant risk-financing technique for automobile liability cases.

And large deductibles are used by only 1% as the predominant risk-financing technique for workers compensation losses.

Captives—subsidiary insurance companies created to underwrite the risks of affiliated companies—are identified as the predominant risk-financing mechanism for five categories of risk in about 10% of the surveyed companies.

Product liability is most often funded mostly through a captive, by 11% of the companies. Eight of the 54 companies using the captive as the dominant risk-financing technique for product liability do not use a fronting company—an insurance company to issue and service the policies and reinsure the risk with the captive.

Captive use

Operations/premises liability is the second most prevalent risk funded predominantly through a captive. Of 535 companies answering the question, 51 said a captive was the predominant risk-financing mechanism. Only three companies directly insured the risk with their captives and 48 used a fronting insurer.

As a percent of those answering, workers compensation and automobile liability tied for third place as risks most often primarily insured with a captive. Forty-nine of 532 respondents—or 9%—said they used a captive as the predominant financing technique for workers compensation. Only four companies said they didn't use a fronting company for workers compensation risks. Of the 48 companies predominantly using a captive to fund automobile liability risks, only two said they didn't use a fronting company.

This limited amount of direct underwriting of auto and workers compensation risks by the captives would be expected for these two statutory lines of insurance.

Other cash-flow mechanisms, implying an insurance policy that is loss-rated and allows the policyholder to pay premiums only as needed to pay losses, are slightly more popular than captives as the dominant risk-funding technique.

Cash-flow mechanisms were identified as predominant for workers compensation by 13%, for product liability by 11%, for operations-premises liability by 10%, for automobile liability for 9% and for property risks by 2%.

Despite this strong showing for risk-financing techniques that demand corporate payment of losses, risk managers say they are mostly transferring corporate risks, not retaining them.

The report's analysis of risk transfer versus retention, however, is skewed because survey respondents were told to exclude exposures financed through a captive when determining if they transferred or retained risks.

Risk transfer

It's also interesting to note that survey respondents rating the amount of risk transfer under the various funding techniques for property risks heavily weighted each of them except self-insurance as providing mostly risk transfer. When rating the risk transfer under the techniques for product liability risks, the emphasis shifted more toward risk retention under large deductibles and cash-flow mechanisms.

Workers compensation is the only risk category that shows more risk retention than transfer. Forty-five percent said the risk is mainly (41%) or wholly (4%) retained, compared with 35% that said the risk was wholly (22%) or mainly (13%) transferred. The remainder considered the risk half transferred.

In other risk categories, risk transfer dominates. Most striking is 82% of the companies that wholly (22%) or mainly (60%) transfer property risks compared with only 8% that mainly retain property risks, and 1% that wholly retain them.

Automobile liability and operations/premises liability is wholly or mainly transferred by two-thirds of the survey respondents with an almost even split between wholly and mainly transferred. In each category, about a quarter of the respondents say the risks are mainly retained. The rest consider the risks half transferred with only a few percent in each wholly retaining the risks.

About half of the companies with product liability risks say they are wholly (26%) or mainly (23%) transferred. Not quite a third consider the risks mainly retained (26%) or wholly retained (3%). Fifteen percent say product liability risks are 50% transferred.

But retention of foreign risks falls dramatically short of risk retention at home. In each major risk category, less than 10% of the respondents mainly or wholly retain foreign risks. Adding together responses of wholly or mainly transferred, transfer of foreign risks dominates workers compensation risks in 87% of the companies, property risks in 98%, product liability risks in 80%, automobile liability risks in 88% and operations/premises liability risks in 86%.

Decisions about risk transfer and other risk management concerns are heavily centralized in corporate headquarters. Ninety-six percent of respondents said decisions on risk management program development, insurance purchases and related service purchases were centralized.

Foreign operations

But centralization of risk management decisions regarding foreign operations is less. Only in two-thirds of the companies are risk management decisions about foreign operations made in the United States. In 19% of the companies, the decisions are made abroad and in 15% of the companies, decisions are made in both places.

Measuring influence of other corporate officers on the selection of insurance companies and brokers, the study found that in slightly more than half the companies, financial officers above the risk or insurance manager have a decisive influence. Senior management, from the chairman of the board to a vp, have a decisive influence on insurance company selection in about a quarter of the companies and on agent/broker selection in almost a third. ■

Breakdown of companies

The 539 companies whose risk management programs are analyzed in the Louis Harris & Associates/Insurance Research Services survey are:

- 277 of the largest 500 industrials.
- 200 of the second largest 500 industrials.
- 23 of the 50 largest commercial banking companies.
- 13 of the 50 largest retailing companies.
- 19 of the 50 largest transportation companies.

The sales volume of the companies is concentrated between $100 million and $5 billion. The amount spent on insurance premiums by the surveyed companies ranges from less than $500,000 in 7% of the companies to greater than $25 million in another 7%. In between, the amount spent is $500,000 to $1 million by 11%, $1 million to $2 million by 15%, $2 million to $5 million by 28%, $5 million to $10 million by 18% and $10 million to $25 million by 14%.

The eight insurance companies, which along with Johnson & Higgins contracted for the study, are: American International Group, Commercial Union Insurance Co., The Continental Insurance Co., Fireman's Fund American Insurance Cos., Royal Globe Insurance Cos. (now Royal Insurance), Sentry Insurance A Mutual Co., The Travelers Corp. and INA Corp.

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Brokers score higher for using imagination

One-third of the risk managers in the Fortune 500 would prefer dealing directly with insurance companies, skipping brokers, a private study says.

But overall, brokers scored higher than insurers for their "imaginative approach to problem solving, ability to implement selected programs and caliber of account representatives," according to the Harris Insurance Research Services study. Only one insurer, American International Group, outscored the brokers on "imaginative approach to problem solving."

The brokers who scored the highest on these attributes the risk managers said were important to them were Alexander & Alexander, Johnson & Higgins and Marsh & McLennan.

Companies surveyed also intend to bring more service needs in-house, especially for workers compensation risks. However, it's not necessarily dissatisfaction with contract services spurring the switch.

Among one-third of the survey respondents who said they were very satisfied with the quality of services delivered under workers compensation policies or contracts for services, one-sixth still want to bring the work in-house.

The report concludes that moving risk management service needs to an in-house staff "is partly a reflection of the territorial imperative of managers to increase the importance of their operation to the firm by increasing the size of their domain." ■

PRIMA convention:

Self-insure, pool to beat problems of future crunch

MEMPHIS—Exploring risk pooling and self-insurance programs now could help governments weather tight insurance market conditions ahead, industry analysts advise.

Today's soft market is accommodating government, but the market is going to change and government will find itself orphaned again, they say.

Because it traditionally is considered a bad risk, government needs creative alternatives to primary insurance, says Clark Johnson, manager of risk management services at Arthur J. Gallagher & Co. in Rolling Meadows, Ill.

"The only way to avoid the effects of being totally dependent on the insurance market is to become a better risk and buy less insurance," Mr. Johnson told members of the Public Risk & Insurance Management Assn.

"If you have a competitive program, don't fall in love with it," he warned. "Times will get worse and when the market changes, you will have the answer if alternatives are sought now."

He is biased in favor of self-insurance to the greatest degree possible, Mr. Johnson said.

He suggested low retention self-insurance programs for governments units paying $50,000 in premiums per year for general liability or auto insurance and $200,000 for workers compensation.

These programs permit greater claims control through a third-party administrator and can be tailored to the group's needs. Municipalities also benefit from interest accrued on reserves.

If self-insurance is not viable, pooling is allowed in about 20 states. Its use is expected to grow this decade, Mr. Johnson said.

Self-insurance and pooling also allow the municipality access to excess/surplus lines companies to purchase insurance against catastrophic losses. They are less restrictive and more competitive than standard markets, he explained.

Mr. Johnson suggested governments approach Lloyd's of London for excess insurance since it is "the most impressive insurance market in the world, very innovative and available in good and bad years." He also suggested Insco and Northumberland as markets. Both in Bermuda, the companies were captives and are now writing third-party risks.

The success of pooling and self-insuring depends on initiation of loss control programs and insulating required reserves from political manipulation, said Claire Stone, senior consultant with Scor Risk Management Inc. ●

Proving worth could save job

By MARY ANN MATLOCK

MEMPHIS—The public risk manager who hides the light of his achievements under a barrel may be leaving his superiors in the dark about the importance of his job.

That omission could cost him his job if the economy forces public officials to start trimming budgets more severely, says Susan Alt, former *Business Insurance* editor and now consultant with Wyatt & Co.

"The most prominent failing of the risk manager has been his unwillingness to get out of the office and do politicking to emphasize the importance of his role," she told members of the Public Risk & Insurance Management Assn. conference here last month.

"It's easy to cut off the risk manager because if he's doing the job well and is invisible, his superiors will think the system is running by itself," she said.

recession watch

Aggressive tactics she suggested the risk manager use to show increasing cost-effectiveness are:

- Establish a five-year loss history with detailed background on safety programs.
- Ask brokers and insurers about cost-effective alternatives to first dollar coverage, especially if premiums paid on a particular insurance cost $100,000 per year.
- Remember you are paying the bills. Act tough in negotiating rates, reserves, policy wording, commissions, fees and services.
- Pool risks with other municipalities and push for legislation allowing pooling. It is cost effective and a tool for gathering claims data.
- Allocate the cost of loss to individual departments to increase the power of risk management.
- Investigate claims over a designated amount.
- Seek cash flow plans that allow the buyer to share investment income reaped on premiums, especially if the premium is $500,000 or more.

Facts fight poor image

MEMPHIS—To fight charges that government units are bad insurance risks, public risk managers must arm themselves with the facts.

A challenge to organize the fact-finding mission was given members of the Public Risk & Insurance Management Assn. last month at their first convention here by Dr. Nestor Roos, professor of insurance at the University of Arizona.

"It's ironic that the insurance industry does not have any statistics on government buyers or clients as a whole. They don't know how good or bad you are," he told PRIMA members.

PRIMA should gather this loss data, he said, suggesting it work with public interest groups that have the resources to survey government units.

Natalie Wasserman, PRIMA executive director, said the organization probably will profile the governmental risk manager, the unit he or she represents and whether he or she is a full- or part-time employe, she said.

Dr. Roos urged PRIMA members to work with the National Safety Council to obtain governmental risk statistics, to encourage professionalism among its members and to push for legislation permitting risk pooling. ●

Public sector group

The Public Risk & Insurance Management Assn. was formed in February 1978 to address the risk management problems faced by the nation's 80,000 government entities and to act as a group clearinghouse for education materials.

More than 300 risk and insurance managers from counties, cities and special government bodies belong to the group, which held its first convention in Memphis, Tenn., last month.

Information on PRIMA can be obtained from executive director Natalie Wasserman at 1140 Connecticut Ave. N.W., Suite 210, Washington, D.C. 20036; 202-828-3614.

Process beats corruption

MEMPHIS—Don Blackhurst, risk manager for Santa Clara County in California, has a formula for keeping political corruption out of the public risk manager's office.

When it's time to award an insurance contract, he calls on private industry for help. After consulting with two insurance experts from the private sector, he selects the underwriter or broker according to bids and makes his recommendation to the county board. Opening up the decision-making process to persons outside county government reduces the chance of favoritism or political manipulation, he said.

This system and qualifying standards for brokers have greatly cut insurance corruption on the West Coast, he said.

Other public risk managers interviewed last month at the Public Risk & Insurance Management Assn. seminar here agreed professionalism is the best tool against the political manipulation of their office.

They prefer that to legislation.

"I think the system can work on its own," said Herb McGill, risk manager for Savannah, Ga. But he suggested agents be discouraged from holding political office and insurance contracts be awarded by a professional risk manager or consultant.

Mark Wilson, risk manager for Wichita Falls, Tex., said paying the risk manager as a professional and making him responsible for his work is important, too.

Louis Cantin, consultant with Risk Control Associates Inc., had a more specific recommendation for PRIMA members to protect their department from corruption: Get a written risk management policy.

"A strong written risk management policy will go a long way toward eliminating political influence on your program," Mr. Cantin told PRIMA members.

"If you get a written statement, you can avoid some cronyism because rescinding the statement needs council vote at a public meeting. No one will want to touch that," he said.

To obtain this leverage, the risk manager first must get the written policy accepted by the government unit.

"Develop patience and nibble away at it," Mr. Cantin said.

He suggests first writing a formal policy on workers compensation because it is statutory with no exceptions.

Next, produce quarterly reports stressing the positive aspects, including money-saving potential, of the initial written policy.

"Give them a policy one at a time. It's more digestible that way," Mr. Cantin said. ●

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City pools seek up to 40% drop in comp premium

By MARY ANN MATLOCK

NEW YORK—Municipalities in Connecticut and Virginia hope to cool the cost of workers compensation insurance by as much as 40% with new risk-sharing pools started this summer.

Nineteen cities and towns participating in the Connecticut Interlocal Risk Management Agency in New Haven are paying 15% less than the standard premiums for workers compensation insurance. They expect year-end rebates on their $4.5 million in premiums to bring the savings to 40%, said Joel Cogen, executive director and general counsel of the Connecticut Conference of Municipalities, which formed the pool.

Ten government entities in Virginia are paying standard rates upfront to Virginia National Underwriters Inc., but expect rebates to cut their workers compensation costs 25% to 30%, said Bradley Harmes, deputy director of the Virginia Municipal League, which formed that state pool. First-year premiums total $750,000.

The two new state pools, which began July 1, buy claims administrative services from Frank B. Hall & Co. They follow a growing nationwide trend in which municipalities too small to self-fund pool their risks with other municipalities. Lower premiums based on good experience are the goal.

"The pool was formed to provide better coverage at lower costs," said Mr. Cogen in Connecticut.

"There has not been a real unavailability problem with workers compensation, but there is always concern over the rates," said Mr. Harmes in Richmond. "We anticipate substantial savings. Local government risks are very good."

Premiums paid to the Virginia pool for the first year are probably equal to or greater than those charged in traditional markets, Mr. Harmes noted. State regulations required that non-stock company premium discounts be less than those offered by commercial insurers, he explained.

Premium rebates at year-end are also subject to state approval, Mr. Harmes said.

The Connecticut pool had to be approved by the state insurance department, as did the Virginia pool, but the Connecticut pool rates and rebates aren't regulated by the state.

Both pools bought excess insurance to cover catastrophic losses.

Connecticut's pool pays the first $500,000 of a loss. Excess insurance of $10.5 million is underwritten by General Reinsurance Co.

Virginia's pool pays the first $175,000 of each loss. Excess insurance up to $1 million is underwritten by INA.

Both pools have visions of expanding to cover other risks if they are successful at pooling workers compensation risks. The Connecticut pool is considering coverage next year for liability risks and heart-hypertension risks among firefighters and police. The Virginia pool plans to take on auto, general liability and property risks for its members.

Among the participants in the Connecticut pool are Groton, Southington, Middletown, Westport, West Haven and Windsor.

Virginia pool members are: Martinsville, Martinsville Public Schools, Prince George County, Prince George County Schools, Vienna, Kenbridge, Keysville, Alexandria City Public Schools, Chesapeake Public Schools and Shenandoah County.

Lower premiums based on good experience are the goal of pools.

Competition creates risk-funding options

By DAVID R. HOSKINS

WHY DO AGENTS fear alternative risk financing? If you ask that question of 100 agents, 99 will tell you, "If my client self-insures I'll lose commission income. Why should I sell something that cuts my own throat?"

Let's dig a little deeper into this whole mystery of alternative risk financing. Let's face it, there is probably only a handful of people who really understand the subject; for most others, the logical consequence of ignorance is fear.

Add to this the usual ostrich-like approach of many insurance companies and it's little wonder agents would be opposed to these relatively complex new ideas.

David R. Hoskins

Unfortunately for status quo buffs, time marches on. Insurers soon realized that in spite of their vocal opposition, corporate buyers would find alternatives to traditional insurance and a number of forward-looking companies, notably AIG and INA, took positive steps to serve these buyers.

A new breed of risk money managers was stripping away the mystique of the insurers. The corporate goal was to lower the cost of risk with pre-tax dollars, including the value of money.

At 20% interest, buyers have to find ways to hold onto money. Everyone wants to pay for services when rendered and insurance should be no different. It didn't take shrewd corporate buyers very long to understand that insurers were getting huge returns on investment unearned premiums and tax reserves.

Risk managers also wanted to be free to pick and choose claims handling and other management services—not be forced to take insurer services as part of the premium. The popular term "unbundling" was coined to describe this method of purchasing services.

Now, privately owned service firms have sprung up all over the country and one need only look at CRIS (CNA), KATUSCO (Kemper), CAC (Continental Or Scott Wetzel (The Hartford) to realize the major insurers are following the pattern of "unbundling" services.

A few years ago only $1 million-plus premium payers looked at these new financing options. Today that number can be as low as $75,000 depending on exposures, loss and interest rates. The agent must either accept smaller commercial accounts as his market or gear up to recommend and service alternative risk financing programs.

It is not surprising that most agents immediately think of self-insurance when alternative risk funding is mentioned. For years the only real alternative to traditional insurance was some form of self-insurance or self-funding. The insurance companies weren't inclined to offer much help and a few jumbo accounts were offered favorable cash flow plans . . . and this was only 10 years ago.

Today, agents and insurers realize there are too many advantages on their side of the ledger to "lose an account to self-insurance."

Legitimate insurers have made big advantage neither self-insurance nor captives can guarantee: tax deductibility of insurance premiums as an ordinary business expense.

As the IRS continues its attack on self insurers' loss reserves and premiums paid to captives, this advantage of the traditional insurer becomes that much more significant.

Insured plans are by no means always a better solution, but they are frequently overlooked by those selling captives or self-insurance. These insured programs are particularly effective on smaller accounts (those with less than $750,000 in annual losses) or where the client is concerned about potential tax problems.

One "insured" alternative is the "paid-loss retro." Unfortunately, the term has hung on and it only partially describes a variety of risk financing techniques. A more accurate description would be an "insured cash-flow plan with

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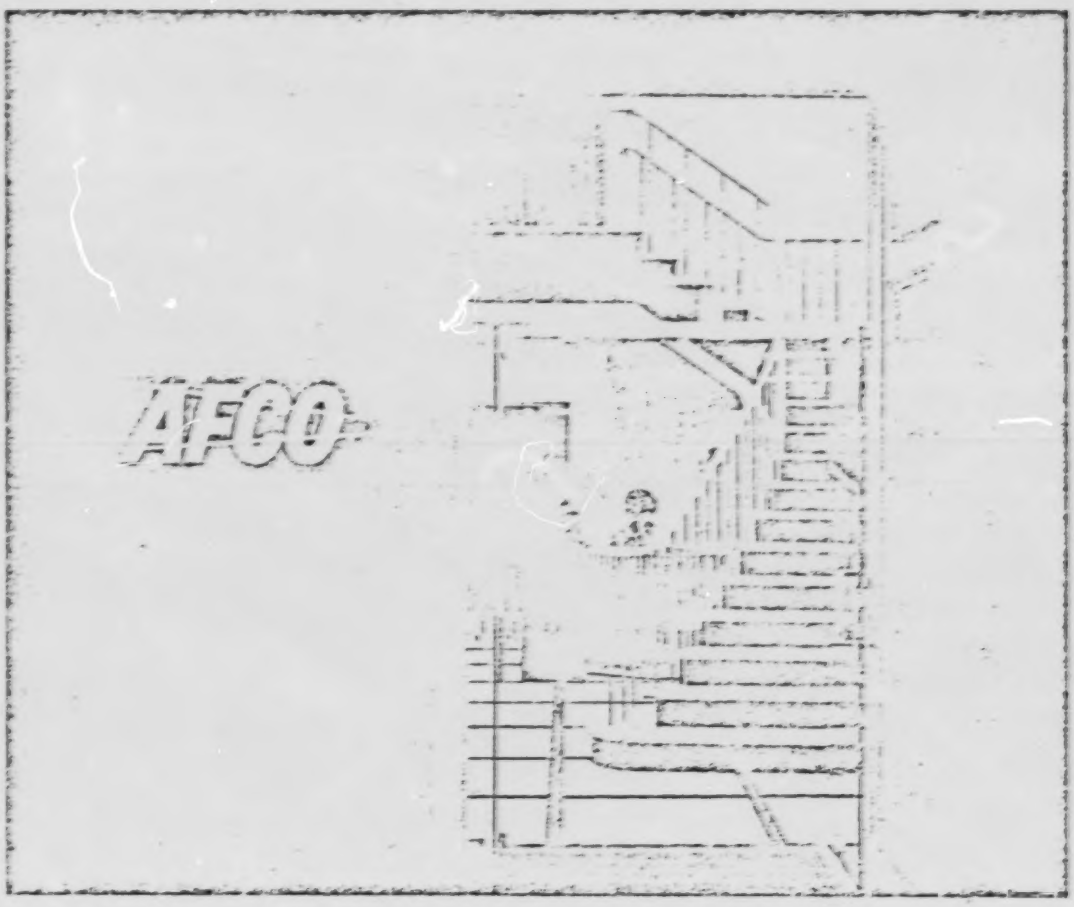

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Insurance provides alternative

Continued from previous page

transfer of risk at an appropriate level."

The object of these plans is to free up cash. The concepts are relatively simple: If an insured program can be constructed so the client pays only for claims as they are paid and expenses as they are incurred, then essentially the same thing as self-insurance is accomplished.

Unfortunately, insurers are required by statutory accounting principles to collect 100% of their billed premiums within 90 days. How then can the insurer postpone collecting the difference between the paid claims and the earned premium?

To satisfy the accountants and insurance commissioners, an arrangement must be made to "loan" the policyholder the difference, and the policyholder gives a promissory note on the amount "borrowed." The note is usually written at a very preferred interest rate and some insurers will further require the note be secured by an irrevocable letter of credit.

Insured option

The bottom line on paid-loss retro plans is that they are very close to self-insurance.

Two words of caution, however. First, the IRS frowns on these plans if there isn't some legitimate transfer of risk. In other words, there must be a reasonable maximum premium on the loss ratable portion or the IRS may consider it a sham and treat it like self-insurance.

Second, the note payable is considered tax deductible only for accrual basis taxpayers. Here the client's chief financial officer and CPA must always have the final word.

The bottom line on these plans is very close to true self-insurance. The costs for claims handling and loss control tend to be about the same.

The cost of excess insurance for the self-insurer is usually a little higher than the non-subject portion or excess coverage in an insured plan. Aggregate stop-loss coverage may not always be available to a self-insurer at any price, whereas it is a very routine part of any insured program.

After looking at many plan comparisons, the differences boil down to:

- Agent commission.
- Insurance company profit and overhead.
- State premium taxes. (Some states charge a self-insurer's tax.)

These last three items may be significant or inconsequential depending on the size of the account and the markups attributed to each item. Usually, they are far outweighed by the after-tax benefits, particularly if the plans are being compared with captives and their associated capitalization costs.

Many clients believe the bottom line is so close that they opt for the insured programs to avoid the scrutiny of the IRS and their own board of directors.

Risk Financing Alternatives Checklist

Client: _____

Exposure(s): _____ Date: _____

Alternatives	Considerations: Available	Satisfy Legal Requirements	Cost Effective	Improve Coverage	Management Attitude	Management Time	Service	Control Losses	Adequate Dollar Size	Financial Guarantees	Tax Considerations
Full Insurance											
Non-Insurance											
Self-Insurance											
Captive Insurance Co.											
Fronted											
Direct											
Rented											
Insured Cash Flow Plan											
Compensating Balance Plan											
Deductible/Limits Plan											
Association/Industry Program											
Banking Plan											
Risk Transfer											
Risk Avoidance											

E = Eliminates Alternative

M = Considerable Merit

P = Serious Problem

What about commissions or fees? Clearly, the agent or broker must be paid adequately for his services to produce a profit for his firm.

Buyers need to realize that many of the unique risk financing techniques in use today were developed by brokers who were willing to commit money to research and development. These think-tanks were funded by commission dollars that came from all clients and the benefits of these non-income producing operations go back to those same clients.

Also, agents and brokers must realize that many of the alternative risk financing methods will reduce commission income, which must be offset by fees for services rendered.

Every state has specific laws regarding the charging of fees by agents or brokers and they should be evaluated thoroughly.

•

David R. Hopkins founded H & W Risk Management Services in 1973 in Irvine, Calif. Formerly the president, Mr. Hopkins currently is engaged on the company's advisory panel.

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Letter To The Editor

Municipal Pooling: Do The Figures Figure?

It was with a bit of interest that I had read the two articles [NU, April 18] which dealt with the idea of pooling the exposures of municipalities. Your practice of presenting articles on both sides of an issue in close physical proximity does your publication credit.

On this particular issue I have no firm opinion, owing to the complexity of relevant considerations which will require much more study and experiment on the part of the industry prior to there being much credibility assigned to either side of the problem. I would, however, like to offer a few comments on the article which was written by Ernest A. Holfoth.

Though I do not wish to argue with Mr. Holfoth's position on the issue I think that he might have structured his argument so as to address this most important concept in a manner which would impress those of us in the industry with his point of view. Even though his paper was addressed to a governmental body it was submitted for publication in our trade press, and as such must bear interest from those of us in the business.

Arguments Miss Mark

The author's premise that "... municipal insurance (or really self-insurance) pools are not undesirable, but can be a most effective way of reducing the cost of funding losses" may very well be true, however, his supporting arguments seem to miss the mark.

In the outset of his argument the author seems to leave much out of his considerations. His first paragraph indicates that the cost of funding for losses might average one-half of premiums paid currently. Here Mr. Holfoth seems to lose sight of that old tenet, "the law of large numbers." In light of this concept I would be hesitant to advocate the funding for losses on the 50% basis should I be in a position whereby a decision would be required of me.

I believe that it is a bit naive to expect that the figures used by the insurance companies, in general, as regards application of monies to fund for losses would be of much use to a relatively small group of risks. Applying figures developed in general to particular circumstances should be seen as courting the demise of the particular program, and other means of development of usable figures must be explored.

Another area of the argument which caught my eye was Mr. Holfoth's consideration of the relationship of premium to incurred losses. I might ask whether or not his "incurred losses" are inclusive of any trending or funding for losses which were incurred but not reported. Though mention is made of experience rating this technique, in and of itself, does not provide for accurate enough trending for ratemaking purposes.

Experience rating techniques and their products, debits and credits, are taken to be an area of undesirable input into the rating structure for municipalities — at least from the standpoint of cost savings. The author points to this idea in so much as the general net effect of the application of these plans on the lines of business written for municipalities tends to result in an applied debit. It must be borne in mind that the adverse experience on each line is the factor which produces the debit. Experience rating plans are built on sound concepts and have withstood the test of time. While it may benefit the individual risk in the municipal pool to avoid charges such as these, I must wonder as to the effect of this type of thinking on the entire program.

It should be remembered that arguments based on the successes of pooling programs must be tempered by consideration of the fact that the industry has had little experience with the concept. Also the author's pointing out that other countries have used the technique successfully has little bearing on the argument as it applies to our country. We are subject to a set of laws and regulations that is unique, and the successes of municipal pooling will rest with the ability of the program to function profitably within our system.

The cursory examination of the points in favor of municipal pooling has not served to adequately support the author's premise (in my mind). The fact that the programs must work within a political atmosphere only complicates the matter. As new administrations come to power in each city, consideration will be given to withdrawal from the programs. Loss assessments will become politically "hot" items.

As I have indicated above I do not wish to take issue with Mr. Holfoth's premise, I merely thought that I would take the time to comment on the structure of his argument. I am sure that there are many others, like myself, interested in this subject and, as with all new ideas, I look forward toward further debate and discussion.

TIMOTHY K. LOVELETTE
Marshall K. Lovelette Agency
West Yarmouth, Mass.

The National Underwriter, June 6, 1980

Village seeks self-funded savings

By JILL KAPLAN

SKOKIE, Ill.—Cheap excess casualty insurance rates and an expensive group health insurance plan convinced this municipality to take large self-insured retentions this year.

The suburban Chicago village of 70,000 expects to save a total of $195,000 this year in insurance and loss costs compared with the cost of fully insured casualty and group health programs.

The biggest saving—estimated at $147,000—is expected in the casualty program, which was redesigned to provide the village with coverage for more risks.

"The numbers fell into place just right in 1980," said Daniel Ryan, Skokie director of finance.

Skokie had considered self-funding casualty risks two years ago, but the $290,000 premium for excess insurance was too high, Mr. Ryan said. The excess casualty insurance premium under the new program is $143,000—about half the price of the earlier quote.

Photo: Jill Kaplan

"The numbers fell into place just right in [redacted] Ryan

The excess policy covers risks previously not insured, including personal injury liability and police professional liability. All employes will be named as insureds on the policy—another village first.

The city's new plan also covers general liability resulting from riot or civil disorder, a provision absent from the old policy. Most municipalities have a civil disorder exclusion.

Skokie, a village with many Jewish residents, made national headlines several years ago as the proposed site for a Nazi march.

The new casualty plan, instituted May 1, includes self-insured retentions of $250,000 per occurrence, with a $500,000 annual aggregate for workers compensation, general liability and auto risks. Mr. Ryan refers to it as "protected self-insurance."

The program, presented by broker Arthur J. Gallagher & Co. of Rolling Meadows, Ill., uses Holland American Insurance Co. of the Mission Group as the excess insurer. The excess policy goes to $5 million.

Claims services for Skokie's casualty coverage are being provided by Gallagher-Basset Insurance Services, a division of Arthur J. Gallagher.

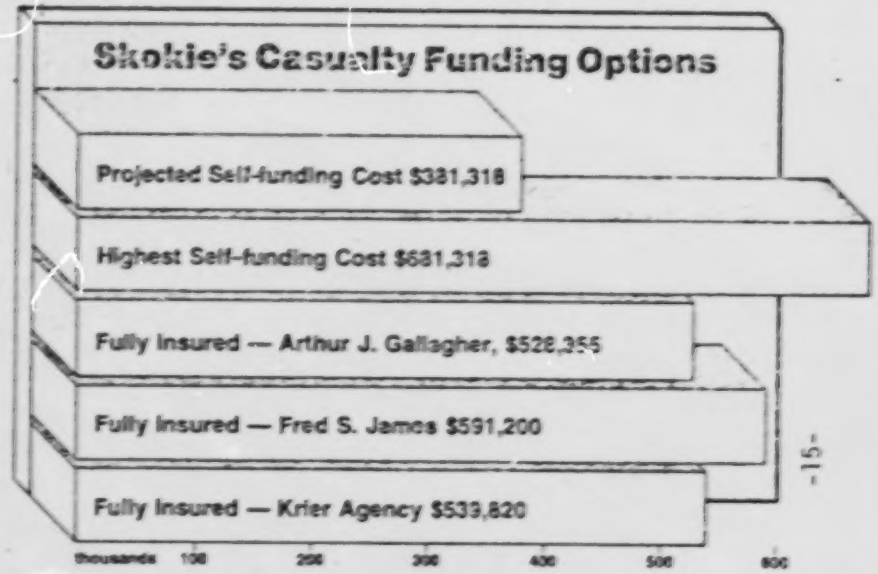
Skokie estimates its total annual casualty and loss costs under the program at $381,318. This includes the excess insurance premium of $143,000, a claim services fee of $38,000 and projected losses of $220,000. Investment revenue is expected to defray costs by $20,000.

This estimate projects a $147,000 annual savings over the lowest conventional quote of $528,355, also submitted by Gallagher.

If the worst losses occur, the maximum cost to Skokie would be the aggregate $500,000 loss plus $181,318 for excess insurance and service fees—or $681,318. This is $153,000 more than the cost of the conventional package.

But Skokie's losses over the past four years average only $194,000. To exceed the cost of standard insurance, the loss level would have to be more than $367,000—equal to the losses in 1979, the year of the great Chicago blizzard, Mr. Ryan says.

Skokie's insurance committee canvassed four brokers and one insurer for quotations on standard casualty policies: Arthur J. Gallagher, [redacted] Fred S. James & Co., [redacted] Agency of Skokie, Corroon & Black and Employers of Wausau.



The five were encouraged to offer alternatives to standard policies. Each was handed a broad description of minimum protection requirements and a detailed outline of the city's loss history, job classifications, payroll and fleet.

"We did not want to write an airtight insurance specification," Mr. Ryan said.

Gallagher was the only broker to propose a self-insured retention for all casualty lines and the plan offered the village the most potential savings, Mr. Ryan said.

Corroon & Black and Employers of Wausau didn't bid.

Fred S. James of Illinois, quoting prices for Northbrook Excess & Surplus Lines Insurance Co., proposed various programs using retrospectively rated plans and deductibles.

The fully insured plan proposed by James was quoted at $591,200. A $5,000 deductible for general liability risks reduced the total [redacted] Con[redacted] on [redacted]

mated $541,900.

In a proposal including a retro plan for workers compensation, James quoted annual costs ranging from $441,000 to $705,000 depending upon losses. With a self-insured workers compensation plan, James quoted fixed costs of $48,153 and maximum workers compensation costs of $483,753.

Krier Agency of Skokie quoted $539,820 for a fully insured plan using Aetna Insurance Co. Skokie had been insured by Aetna through Krier Agency.

Using retrospectively rated plans for the casualty risks, Krier quoted annual costs ranging from $388,921 to $697,000. The Krier retro plans would have limited to $100,000 each loss charged under the retros.

The insurance committee recommended against the retro plans for three reasons:

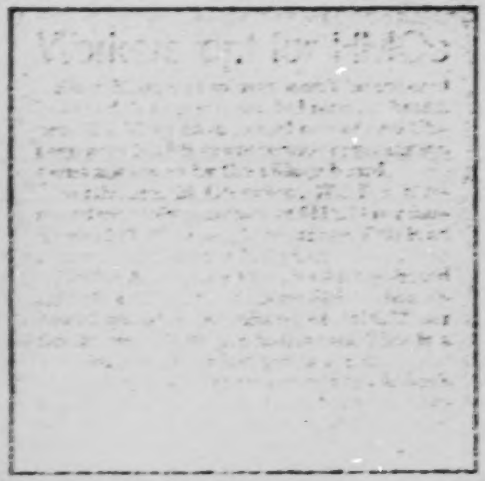
- The village would lose flexibility at the two policy renewal dates because of the potential risk in canceling the retro.
- One bad year would affect the total retro adjustment for all three years. The benefit of one or two good years would be lost.

Village self-funds for savings

Continued from page 3

• The insurance company sets the reserves for claims and holds the policyholders' money under the plans.

The insurance committee also recommended the village self-insure, with stop-loss coverage, its group health program for 500 employes.



The fully insured group health plan quoted by Blue Cross at $504,000 reflected a 15% rate hike over last year.

The plan adopted keeps Blue Cross as the administrator at 6.9% of claims paid. Skokie pays the first $615,850 in claims. Aggregate stop-loss insurance capping annual loss at $615,850 costs the city $6,500.

The medical program's total cost is expected to be $456,538, with losses estimated at $492,680. The savings are estimated at $48,000 compared with the insured program cost.

But employe and retiree contributions of 12% of premiums to the village subtracted $80,100 to reach the total program cost, Mr. Ryan said.

The program has been going for four months and so far projections are right on target, he says. Even if the city is hit with an unexpected blow of big claims, the maximum cost of the health plan would be $587,822—only $34,000 more than the Blue Cross conventional premium plan for $504,000.

"One of the most difficult tasks was explaining the concept of protected self-insurance to the staff, board of trustees and the public," Mr. Ryan said.

The insurance committee that recommended the self-insurance included Mr. Ryan and the city's purchasing agent, director of personnel and assistant village manager.

REASONS FOR POOLING

1 - IMPROVE ACCESS TO INSURANCE MARKETS

EXCESS INSURERS HAVE CONSIDERABLY MORE FREEDOM FROM GOVERNMENT REGULATIONS THAN DO ADMITTED INSURERS AND AFFORD MORE FLEXIBILITY IN COVERAGE AND RATING.

2 - LOWER COSTS

SOME OF THE ACQUISITION AND OVERHEAD COSTS OF CONVENTIONAL INSURANCE PROGRAMS MAY BE ELIMINATED THROUGH A POOL, THOUGH THIS IS NOT AN ADVANTAGE OVER SELF-INSURANCE -- FOR THOSE ORGANIZATIONS LARGE ENOUGH TO SELF-INSURE.

THE FOLLOWING ARE POTENTIAL SOURCES OF COST REDUCTION:

A - LOWER OVERHEAD.
B - MORE FLEXIBLE UNDERWRITING OF EXCESS INSURERS.
C - POSSIBLY LESS STANDARDIZED OR RESTRICTIVE PROTECTION REQUIREMENTS.
D - ECONOMY OF SCALE - PURCHASING POWER.

3 - IMPROVE SCOPE OF PROTECTION

BECAUSE OF HIGH RETENTION AND LARGER PREMIUM BASE, COMPETITION AMONG EXCESS INSURERS IS INCREASED, THUS PLACING POOL PARTICIPANTS IN A GREATER BARGAINING POSITION.

4 - POOL RISKS WITH OTHERS

A RISK MANAGEMENT POOL PROVIDES A MEANS FOR SPREADING RISKS AMONG A NUMBER OF SEPARATE ENTITIES. UNINSURABLE RISKS COMMON TO A GROUP CAN THUS BE POOLED WITH THE GROUP. INSURABLE RISKS COMMON TO A GROUP CAN THUS BE POOLED WITH THE GROUP. INSURABLE RISKS CAN ALSO BE POOLED TO ACHIEVE A HIGHER RETENTION LEVEL THAN EACH ENTITY COULD ACHIEVE ON ITS OWN, AS WELL AS TO PROVIDE SPECIALIZED LOSS PREVENTION OR CLAIMS ADJUSTING.

REASONS FOR POOLING

5 - PARTICIPATE IN PREARRANGED EXCESS INSURANCE PROGRAMS

WITH THE GROWTH OF POOLS IN THE LAST FEW YEARS, SOME EXCESS MARKETS HAVE ESTABLISHED EXCESS POOL PROGRAMS. CURRENTLY, ONE MUNICIPAL POOL IN CALIFORNIA IS INVESTIGATING THE POSSIBILITY OF ARRANGING FOR A "MASTER" EXCESS PROGRAM FOR SEVERAL MUNICIPAL POOLS -- AS IS THE ASSOCIATION FOR CALIFORNIA COUNTY GOVERNMENTS.

6 - CAPACITY

THE FLUCTUATIONS OF INSURANCE MARKETS IN THE LAST FEW YEARS CANNOT ALWAYS SUPPLY THE AMOUNT OF INSURANCE NEEDED, OFTEN BECAUSE OF SPECIFIC CONSTRAINTS FROM REINSURERS. A DIRECT APPROACH TO SELL A SPECIFIC RISK HAS PROVED TO OPEN SOME MARKETS.

THUS, CAPACITY CAN BE DEVELOPED BY IMPROVED ORDERING OF EXCESS INSURANCE AND REINSURANCE MARKETS, INDUSTRY POOLING, AND STIMULATING CONVENTIONAL MARKETS BY THE THREAT OF COMPETITION.

7 - ACCUMULATE FUNDS

AS CASH IS BUILT UP IN THE POOL, IT MAY BE USED FOR OUTSIDE STUDIES, ADDITIONAL SERVICES COMMON TO ALL, ANNUAL AUDITS, OR AS A MEANS TO EITHER: (1) RETURN AS A DIVIDEND TO PARTICPANTS, OR (2) REDUCE SUBSEQUENT CONTRIBUTIONS FROM PARTICIPANTS.

8 - IMPROVE CASH FLOW

THE PORTION OF THE FUNDS CONTRIBUTED TO THE POOL BY PARTICIPANTS FOR POOLED SELF-INSURANCE IS RETAINED BY THE POOL, AND NOT REMITTED TO AN OUTSIDE INSURANCE CARRIER. THE INTEREST-INCOME EARNED ON THESE FUNDS ACCRUES TO THE INTEREST OF ALL PARTICIPANTS.

REASONS FOR POOLING

9 - OVERCOME UNDERWRITING RESTRICTIONS

BECAUSE OF LARGER SIZE, UNDERWRITING RESTRICTIONS PREVIOUSLY ENCOUNTERED WITH INDIVIDUAL (AND PRIMARY) PLACEMENTS EITHER DISAPPEAR OR BECOME A SUBJECT OF NEGOTIATION.

10 - THE METHOD OF PAYMENT (PREMIUM) CAN BE PAID ON AN ANNUAL BASIS AND THEREFORE IS BUDGETABLE.

11 - CONTROL LOSS PREVENTION EFFORTS

RATES CAN BE MADE MORE RESPONSIVE SO AS TO REWARD LOSS PREVENTION EFFORTS AT SOME LOCATIONS AND APPLY AN EXTRA CHARGE TO HIGHER HAZARD LOCATIONS.

12 - CONTROL CLAIMS ADMINISTRATION

CLAIMS MANAGEMENT PLAYS A VITAL ROLE IN THE REDUCTION OF CLAIMS COSTS -- ONE THAT IS NOT EASILY PERCEIVED UNTIL A SELF-INSURED PROGRAM IS COMMENCED. UNDER A POOLING PROGRAM, THE SELECTION AND CONTROL OF A CLAIMS ADMINISTRATOR IS TOTALLY UNDER THE CONTROL OF THE POOL.

GENERAL STRUCTURE
(EXAMPLE OF A CURRENT POOL)

PRIOR TO IMPLEMENTATION OF THE POOLING PROGRAM, EACH AGENCY PURCHASED ITS OWN INSURANCE. TO ONE DEGREE OR ANOTHER, INSURANCE RELATED SERVICES SUCH AS LOSS PREVENTION, CLAIMS ADJUSTING AND LOSS RECORDKEEPING WERE SUPPLIED BY THE INSURANCE COMPANIES. THE POOLING PROGRAM SUBSTITUTES A COLLECTIVE APPROACH TO LOSS FUNDING AND SERVICING FOR THE PREVIOUS PROGRAMS.

UNDER THE POOLING PROGRAM, LOSSES ARE FUNDED IN THE FOLLOWING MANNER:

1) EACH AGENCY ASSUMES ITS OWN LOSSES (INCLUDING LOSS ADJUSTING EXPENSES) TO A LEVEL COMMENSURATE WITH ITS FINANCIAL SIZE, BUT AT LEAST TO $1,000 PER LOSS.

2) A CENTRAL POOL, OR SELF-INSURANCE FUND, IS CREATED AND FUNDED BY ALL PARTICIPATING AGENCIES. THIS POOL PAYS ALL LOSSES (INCLUDING THE PRO RATA SHARE OF LOSS ADJUSTING EXPENSES) BETWEEN EACH INDIVIDUAL RETENTION LEVEL (STEP NO. 1 ABOVE) AND:

   A) $5,000 FOR ALL PROPERTY LOSSES, SUCH AS FIRE, THEFT, DAMAGE TO AGENCY-OWNED MOTOR VEHICLES, ETC.
   B) $250,000 FOR ALL LIABILITY LOSSES. THIS INCLUDES GENERAL LIABILITY, AUTO LIABILITY, FALSE ARREST AND ERRORS AND OMISSIONS.
   C) $200,000 FOR ALL WORKERS' COMPENSATION LOSSES.

3) EXCESS INSURANCE IS PURCHASED BY THE POOLING AUTHORITY AND PAYS FOR ALL CATASTROPHE LOSSES FROM:

   A) $5,000 TO $6 MILLION FOR ALL PROPERTY LOSSES.
   B) $250,000 TO $10 MILLION FOR ALL LIABILITY LOSSES.
   C) $200,000 TO $5 MILLION FOR ALL WORKERS' COMPENSATION LOSSES.

GENERAL STRUCTURE
(EXAMPLE OF A CURRENT POOL)

CLAIMS ADMINISTRATION SERVICES ARE PURCHASED FROM AN OUTSIDE CLAIMS ADMINISTRATION SERVICE FIRM FOR THE ADJUSTMENT OF ALL LIABILITY AND WORKERS' COMPENSATION LOSSES. LOSS PREVENTION AND PROPERTY ADJUSTING SERVICES ARE TO BE PURCHASED ON A WHEN NEEDED BASIS. LOSS RECORDKEEPING SERVICES ARE PROVIDED BY THE CONTRACT CLAIMS ADMINISTRATION SERVICE FIRM IN THE FORM OF COMPUTERIZED LOSS RUNS SUPPLIED MONTHLY TO EACH PARTICIPATING AGENCY.

AN ALTERNATIVE TO PURCHASING SERVICES FROM AN OUTSIDE ADMINISTRATION FIRM IS THE ESTABLISHMENT OF A CLAIMS PROCESSING UNIT WITHIN THE COUNTY OR POOL. PROCEDURES FOR EVALUATION AND COST CONTROL OF THESE ADMINISTRATIVE SERVICES MUST BE ADDRESSED.

GENERAL STRUCTURE

THE ADMINISTRATIVE ENTITY THROUGH WHICH THIS IS ACCOMPLISHED IS A SEPARATE LEGAL ENTITY THROUGH AN EXERCISE OF JOINT POWERS BY THE PARTICIPATING AGENCIES. EACH OF THE ORIGINAL PARTICIPATING AGENCIES IS REPRESENTED ON THE BOARD OF DIRECTORS. ADMINISTRATIVE COUNSEL IS OBTAINED ON A WHEN-NEEDED BASIS.

THE ANNUAL "PREMIUM" CHARGED EACH AGENCY IS:

1) DESIGNED TO REFLECT THE RISK EXPOSURE OF EACH PARTICIPATING AGENCY, AND

2) MODIFIED TO REFLECT THE ACTUAL LOSSES PAID BY THE POOL ON BEHALF OF EACH PARTICIPATING AGENCY.

THUS, EQUITY IS ACHIEVED TO THE GREATEST EXTENT POSSIBLE. THIS ANNUAL CHARGE TO EACH AGENCY CONSISTS OF ITS PRO RATA SHARE OF:

1) EXCESS INSURANCE PREMIUM,

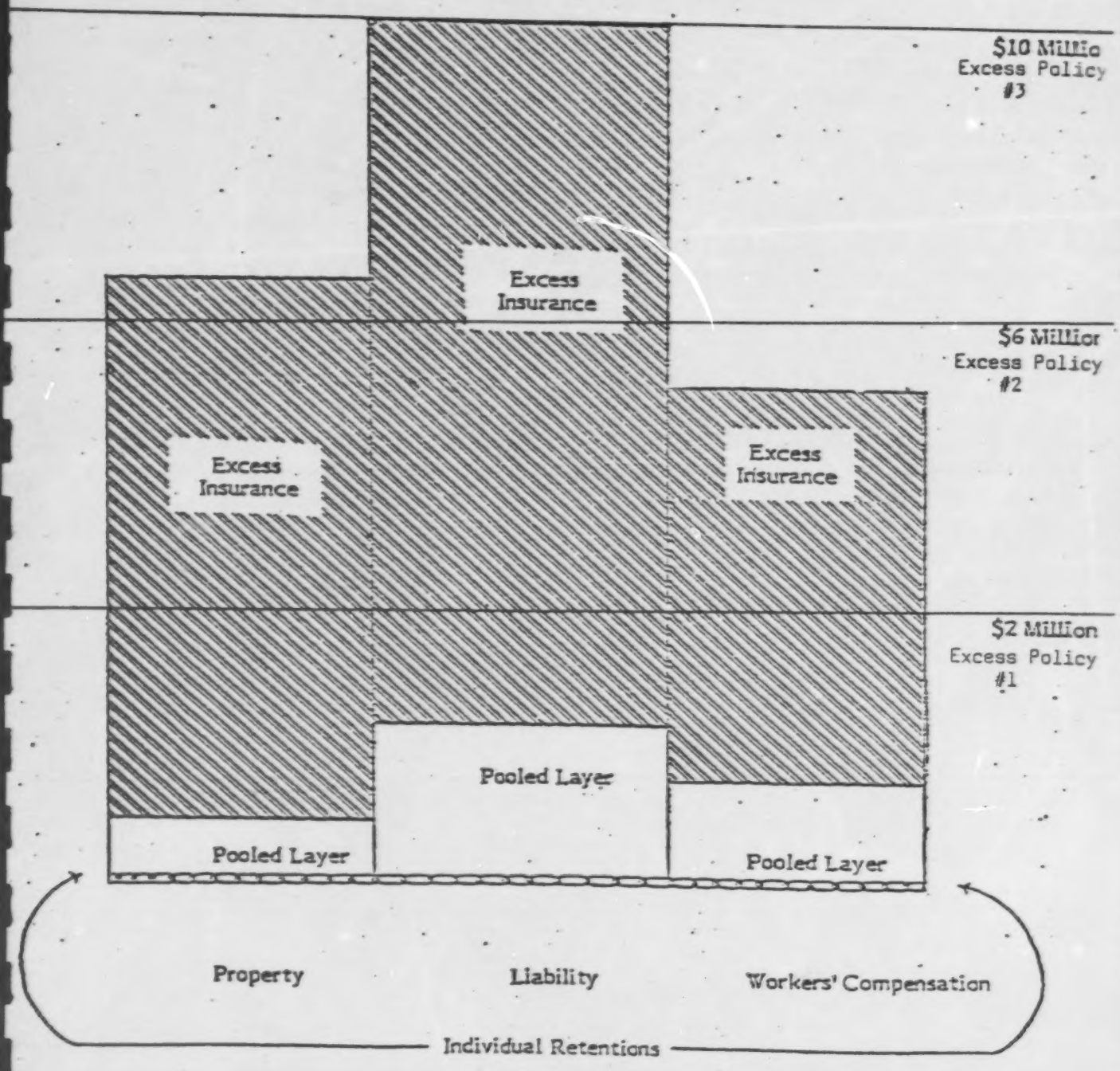
2) CHARGE FOR THE POOLED RISK (OR LOSSES), RECOGNIZING THE DEDUCTIBLE SELECTED,

3) CLAIMS ADJUSTING AND LEGAL COSTS, AND

4) ADMINISTRATIVE AND OTHER COSTS TO OPERATE THE AUTHORITY.

GENERAL STRUCTURE

PER-LOSS LIMITS



COST ALLOCATION

ALLOCATIONS AMONG PARTICIPATING AGENCIES SHOULD REFLECT:

1) SCOPE OF COVERAGE.

2) LIMITS OF LIABILITY.

3) SIZE OF DEDUCTIBLE SELECTED.

4) HAZARD (DEGREE OF RISK).

THESE ALLOCATIONS ARE THEN MODIFIED TO REFLECT EACH AGENCY'S INDIVIDUAL POOLED LOSS EXPERIENCE -- RETROSPECTIVELY OR PROSPECTIVELY.

SCOPE OF POOLED COVERAGE

COVERAGE IN THE CENTRAL POOL MAY BE STRUCTURED IN ONE (OR COMBINATION) OF THREE WAYS:

1) PROVIDE COVERAGE IDENTICAL TO THAT OF THE EXCESS POLICY.

2) PROVIDE BROADER COVERAGE, INCLUDING SUCH UNINSURABLE RISKS AS POLLUTION, STRIKES, ETC.

3) PROVIDE MORE LIMITED COVERAGE, EXCLUDING SUCH CATASTROPHIC PERILS AS FLOOD AND EARTHQUAKE FROM THE POOL, BUT INCLUDING SUCH COVERAGE IN THE EXCESS PROGRAM.

GOOD RISK MANAGEMENT PRACTICES WOULD SAY TO USE THE POOL AS BROADLY AS POSSIBLE.

UNIQUE AND INSURABLE EXPOSURES, SUCH AS AIRCRAFT AND/OR AIRPORTS, GENERALLY SHOULD BE KEPT OUT OF THE POOL AND SEPARATELY INSURED.

APPENDIX A

JOINT POWER AGREEMENT

ANTELOPE VALLEY SCHOOLS TRANSPORTATION AGENCY

Proposed 10/17/79
Revised 12/10/79
Revised 2/8/80
Revised 2/28/80
Revised 3/6/80
Revised 3/14/80

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APPENDIX A: COMPUTATION OF MEMBERS' MILEAGE BETWEEN HOME AND SCHOOL

JOINT POWERS AGREEMENT

TO ESTABLISH, OPERATE AND MAINTAIN THE ANTELOPE VALLEY SCHOOLS TRANSPORTATION AGENCY

THIS AGREEMENT is entered into pursuant to the provisions of the Joint Exercise of Powers Act, Title 1, Division 7, Chapter 5, Article 1 (Sections 6500, et seq.) of the California Government Code, between the public educational agencies which are, and which may hereafter become, signatory hereto for the purpose of operating the Antelope Valley Schools Transportation Agency.

WITNESSETH

WHEREAS, it is to the mutual benefit and in the best public interest of the parties herein subscribed to join together to establish this joint powers agency to accomplish the purposes hereinafter set forth; and

WHEREAS, the parties hereto have determined that there is a need for more economical school transportation and improvements in bus service which may be accomplished through a joint powers agency for school transportation providing for centralized operations, service, and maintenance; and

WHEREAS, a joint powers agency for school transportation can adequately serve the needs of all such signatories.

NOW, THEREFORE, FOR AND IN CONSIDERATION OF THE MUTUAL ADVANTAGES TO BE DERIVED THEREFROM, AND IN CONSIDERATION OF THE EXECUTION OF THIS AGREEMENT BY OTHER PUBLIC EDUCATIONAL AGENCIES, each of the parties hereto does agree as follows:

A. FORMATION OF ENTITY

1. CREATION OF A JOINT POWERS ENTITY.

A joint powers entity, separate and apart from the public educational agencies signatory hereto, shall be and is hereby created and shall hereafter be designated as the Antelope Valley Schools Transportation Agency (hereinafter referred to as the "Agency").

2. FUNCTIONS OF THE AGENCY.

(a) The Agency is established for the purposes of administering this Agreement, pursuant to the joint exercise of powers provisions of the California Government Code, and for providing the services and other items necessary and appropriate for the establishment, operation, and maintenance of an efficient system of public school transportation for the parties hereto.

(b) The functions of the Agency are:

1. To provide transportation for authorized pupils, employees, and others to and from school, to and from school-sponsored activities, for field trips and excursions, and for such other school events and activities authorized or permitted by law.

2. To make and enter contracts.

3. To employ agents and employees.

4. To acquire, construct, manage, maintain, or operate any building, works or improvements.

5. To acquire, hold, manage, maintain, operate, or dispose of real or personal property, including but not limited to school buses.

6. To provide for the upkeep, care, and operation of vehicles.

7. To incur debts, liabilities, and obligations.

8. To receive contributions from the parties hereto; to receive payments of public funds to defray costs incurred by the Agency; to receive advances of public funds subject to repayment as provided herein; and to use personnel, equipment, or property of one or more of the parties in lieu of contributions or advances, all for the purposes set forth in this Agreement.

9. To invest surplus reserve funds as deemed appropriate by the Board of Directors.

10. To secure proper and adequate insurance for public liability, property damage, fire, theft, workers compensation, and other risks or exposures in amounts and in forms prescribed by the Board of Directors and to co-insure each of the parties hereto.

11. To sue and be sued in the name of the Agency.

12. To perform such other functions as may be necessary or appropriate to carry out this Agreement, so long as such other functions so performed are not prohibited by any provision of law.

3. POWERS OF THE AGENCY.

The Agency shall have the power and authority to exercise any power common to the public educational agencies which are members to this Agreement, provided that the same are in furtherance of the functions and objectives of this Agreement as herein set forth. Pursuant

to Section 6509 of the California Government Code, the exercise of the aforesaid powers of the Agency shall be subject to the restrictions upon the manner of exercising such powers by a public educational agency having the same status as the Lancaster School District of Los Angeles County, except as otherwise provided in this Agreement.

4. TERM OF THE AGREEMENT.

This Agreement shall become effective on April 15, 1980 and shall become operative at 12:00 a.m. on July 1, 1980. This Agreement shall continue in effect until lawfully terminated as provided herein. In the event of a reorganization of one or more of the public educational agencies participating in this Agreement, the successor in interest or successors in interest to the obligations of any such reorganized public educational agency may be substituted as a member or members to this Agreement.

B. ORGANIZATION

5. MEMBERSHIP IN THE AGENCY.

(a) Membership in the Agency shall consist of public educational agencies which agree to comply with the terms of this Agreement. Each party which becomes a member of the Agency shall be entitled to the rights and privileges of, and shall be subject to the obligations of, membership as provided in this Agreement.

(b) Parties originally forming the Agency and agreeing to comply with the terms of this Agreement shall become members of the Agency upon the effective date of this Agreement.

(c) For all other public education agencies which desire to become members of the Agency after the effective date of this Agreement, such membership is contingent upon written request of the Agency approved in writing by two-thirds (2/3) of the public educational agencies then members of the Agency, and upon execution of a copy of this Agreement whereby such agency agrees to comply with the terms of this Agreement.

6. BOARD OF DIRECTORS

(a) A Board of Directors is hereby established to direct and control the Agency.

(b) Each member of the Agency shall be entitled to appoint to the Board of Directors one representative and one alternate who shall be designated in writing. Said representative and said alternate must be an officer or an employee of the member, and shall serve at the pleasure of the member by whom appointed. Only the designated representative or designated alternate may represent a member and each shall be invited to attend all meetings of the Board of Directors.

(c) Each member shall have one vote, which may be cast only by the designated representative or the designated alternate. No proxy or absentee votes shall be permitted. Except as otherwise provided, a vote of a majority of those members constituting the Board of Directors shall be sufficient to constitute action, provided that a quorum is present. A quorum shall consist of a majority of the active members of the Agency.

(d) The Board of Directors may conduct regular, adjourned regular, special, and adjourned special meetings, provided, however, that it will hold at least one regular meeting each quarter. The date, time, and place for each such regular meeting shall be fixed by

resolution of the Board of Directors, which resolution shall be publicly posted prior to the meeting on a public bulletin board to be designated by the Board of Directors and shall be filed with each member of the Agency. All meetings of the Board of Directors shall be called, held, and conducted in accordance with the terms and provisions of the Ralph M. Brown Act, Sections 54950, et seq., of the California Government Code, as said Act may be modified by subsequent legislation, and as the same may be augmented by rules of the Board of Directors not inconsistent therewith.

Except as otherwise provided or permitted by law, all meetings of the Board of Directors shall be open and public. The Board of Directors shall cause minutes of its meetings to be kept, and shall promptly transmit to the members of the Agency true and correct copies of the minutes of such meetings.

(e) The Board of Directors may establish rules governing its own conduct and procedure, and have such expressed or implied authority as is not inconsistent with or contrary to the laws of the State of California and this Agreement.

(f) The Board of Directors, by resolution, shall designate a specific location at which it will receive notices, correspondence, and other communications, and shall designate one of its members as an officer for the purpose of receiving service on behalf of the Board of Directors. The Board of Directors shall comply with the provisions of Sections 6503.5 and 53051 of the Government Code requiring the preparation and filing of a statement with the Secretary of State and with the County Clerk.

(g) The Board of Directors may appoint and dissolve working committees from its active membership.

(h) The Board of Directors shall annually, on or before June 1st, adopt a budget showing each of the purposes for which the Agency will need money and the estimated amount of money that will be needed for each such purpose for the ensuing fiscal year. A copy of the budget shall promptly be transmitted to each of the members of the Agency.

(i) No one serving on the Board of Directors shall receive any salary or compensation from the Agency for service on the Board of Directors.

7. OFFICERS.

(a) The principal officers of the Agency and the Board of Directors shall be elected by the Board of Directors and shall be a President, a Vice President, a Secretary, and a Treasurer and shall each serve a term of office as may be established by the Board of Directors in its rules. Any person elected or appointed as an officer may be removed at any time, with or without cause, and all vacancies arising may be filled at any time by the affirmative vote of a majority of the Board of Directors.

(b) The President shall have general supervision and direction of the business of the Agency, shall see that all orders and resolutions of the Board of Directors are put into effect, and shall be a member of all committees appointed by the Board of Directors. The President shall have such other powers and perform such other duties as may be prescribed from time to time by the Board of Directors.

(c) The Vice President shall have such powers and perform such duties as may be prescribed from time to time by the Board of Directors or the President. In the absence or disability of the President, the Vice President shall be vested with all the powers and authorized to perform all the duties of the President.

(d) The Secretary shall attend all meetings of the Board of Directors and record all votes and the minutes of all proceedings in a book to be kept for that purpose. The Secretary shall give, or cause to be given, notice of all meetings of the Board of Directors when notice is required by this Agreement. The Secretary shall have such other powers and perform such other duties as may be prescribed from time to time by the Board of Directors or the President.

(e) The Treasurer shall assume the duties described in Section 6505.5 of the California Government Code, as follows:

1. Receive and receipt for all money of the Agency and place it in the Los Angeles County Treasury to the credit of the Agency.

2. Be responsible for the safekeeping and disbursement of all money of the Agency held by him.

3. Pay, when due, out of money of the Agency so held by the Treasurer, all sums payable by the Agency only upon warrants authorized by the Treasurer and drawn by the Auditor-Controller of Los Angeles County, or his authorized representative.

4. Verify and report in writing on the first day of July, October, January, and April of each year to the Board of Directors and to the members of the Agency the amount of money held for the Agency, the amount of receipts since the last report, and the amount paid out since the last report.

The Treasurer shall have such other powers a: perform such other duties as may be presented from time to time by the Board of Directors or the President.

8. ADMINISTRATION.

(a) The Board of Directors shall select and employ a Director of Transportation who shall report directly to the Board of Directors.

(b) The Director of Transportation shall be the chief administrative officer of the Agency.

(c) The Director of Transportation shall, subject to review by the Board of Directors, direct the overall operations of the Agency. The Director of Transportation shall have such additional specific duties, functions, and powers as are established by the Board of Directors, including but not limited to preparation, submission, and revision of the Agency budget, assignment and transfer of employees, and entering of contracts for or on behalf of the Agency pursuant to Section 39656 of the Education Code.

(d) The Director of Transportation shall attend all meetings of the Board of Directors except as otherwise authorized by the Board.

C. OPERATIONS

9. ACQUISITION OF PROPERTY.

(a) As provided in Education Code, any party to this Agreement may sell, exchange, grant, or quit claim all or any of its interests in, or may lease for a term not exceeding 99 years, to the Agency any real property belonging to the party, and which is not or will not at the

time of delivery of title or possession be needed for school classroom buildings by the party owning it.

1. Such sale, exchange, lease, or grant of an interest in real property shall be upon such terms and conditions as the party and the Agency may agree.

2. It shall be competent to provide that, in any lease of real property between a party and the Agency, the lessee may purchase the property at an agreed purchase price and that rental paid for the use of the property shall be applied to whole or in part upon the purchase price.

(b) As provided in the Education Code, any party to this Agreement may sell or lease any personal property or school supplies belonging to the party to the Agency. The selling price and the terms of the sale, or the lease price and the terms of lease shall be fixed by the party and the Agency and approved by the County Superintendent of Schools.

(c) The Agency may purchase, lease, or lease with option to purchase real or personal property from private parties or from public agencies not parties to this Agreement. Such purchase, lease, or lease with option to purchase shall be made only as prescribed by the Education Code.

(d) Expenditures by the Agency for the purchase, exchange, lease, or lease with option to purchase of real or personal property are appropriate charges against the funds of the Agency.

10. FINANCES.

(a) The Agency shall operate on a fiscal year from July 1st to June 30th.

(b) Payments, charges, and assessments.

1. Each member shall pay to the Agency each fiscal year the member's annual regular transportation cost calculated by the Board of Directors pursuant to subparagraph (b)2 of this article. Each member shall make partial payment of 1/12th the member's annual regular transportation cost on a monthly basis, due on the first of each month.

2. Each member's annual regular transportation cost shall be that percentage of the Agency's total costs as determined by the Board of Directors as the member's total accrued miles for providing regularly scheduled pupil transportation between home and school as reported on the member's J-141 report for the 1978-79 and 1979-80 school years bear to the grand total accrued miles for providing regularly scheduled pupil transportation between home and school for all members of the Agency. For planning and budget purposes until actual accrued miles are computed for the 1979-80 school year for each member, estimated accrued miles for providing regularly-scheduled pupil transportation between home and school for the 1979-80 school year may be used by the Agency in calculationg the percentages provided by this subparagraph. (See Appendix A for calculations.)

3. In addition to the annual regular transportation cost calculated above, each member shall pay monthly, upon invoicing by the Agency, the actual cost of special transportation provided for the member by the Agency on a contract basis. Such special transportation shall include transportation for field trips and excursions, for school sponsored activities, for summer school and twelve-month schools during summer months, for special education programs, and for such other non-regular transportation as the parties may request.

4. Should the actual total costs of the Agency exceed in any year the total regular and special transportation payments made by all members of the Agency for that year, the members may be assessed by the Board of Directors an additional amount based upon the percentage of all regular and special payments made by each member relative to the total payments made by all members for that year.

11. ACCOUNTS AND RECORDS.

(a) The Treasurer of Los Angeles County is the designated depositary of the Agency.

(b) The Agency is strictly accountable for all funds received and dispersed by it and, to that end, the Agency shall establish and maintain such funds and accounts as may be required by good accounting practice or by any provision of law or any resolution of the Agency. Books and records of the Agency in the hands of the Treasurer shall be open to inspection at all reasonable times by representatives of the members.

The Agency, as soon as practical after the close of each fiscal year, shall give, or cause to be given, a complete written report of all financial activities for such fiscal year to each member of the Board of Directors, and to the chief administrative officer.

(c) The Board of Directors shall make, or contract with a Certified Public Accountant to make, an annual audit of the operations, accounts, records, and financial affairs of the Agency. In each case, the minimum requirements of the audit shall be those prescribed by the State Controller for special districts under Section 26909 of the California Government Code and shall conform to generally accepted auditing standards and accounting principles. When such an audit of accounts and records is made by a certified public accountant, a report

thereof shall be filed as a public record with each of the members of the Agency and also with the Auditor-Controller of Los Angeles County. Such reports shall be filed within four (4) months of the end of the fiscal year under examination. Any costs of the audit, including contracts with, or employment of, a Certified Public Accountant in making the audit(s) provided herein, shall be borne by the Agency.

(d) The Auditor-Controller of Los Angeles County shall draw warrants to pay demands against the Agency when such demands have been duly approved by the Board of Directors and the Treasurer.

12. INVESTMENT OF SURPLUS FUNDS.

(a) The Board of Directors shall have the power to invest or cause to be invested in compliance with Section 6509.5 of the California Government Code, such reserve surplus funds as are not necessary for the immediate operation of the Agency in such securities as allowed by Section 53601 of the California Government Code.

(b) The level of cash to be retained for the actual operation of the Agency shall be determined by the Board of Directors.

D. DISOLUTION OF AGENCY AND DISPOSITION OF FUNDS AND PROPERTY

13. TERMINATION OF AGREEMENT.

This Agreement may be terminated at the end of any fiscal year by affirmative action of two-thirds (2/3) of the then participating members; provided, however, that the Agency and this Agreement shall continue to exist for the purpose of disposing of liabilities, distribution of assets, and all other functions necessary to wind up the affairs of the Agency.

14. WITHDRAWAL OR REMOVAL FROM MEMBERSHIP.

(a) Any member of the Agency may withdraw from its status as a member and party to the joint powers agreement at the end of any fiscal year by notifying the Board of Directors of the Agency in writing prior to March 1st of any fiscal year.

(b) The withdrawing member shall continue to be responsible for all regular and special transportation costs, charges, and assessments and for all liabilities and contingencies incurred by or attributable to the member arising from membership in the Agency.

(c) Upon the withdrawal of any member, the Board of Directors shall establish a reserve account for all Agency expenses and liabilities against the withdrawing member arising out of facts occurring while the withdrawing member was a member of the Agency but submitted after said member has withdrawn from same. The amount of said reserve account shall be set by the Board of Directors. Any and all amounts remaining in the member's reserve account after all expense claims and liabilities against the member have been fully paid and satisfied shall be returned to the withdrawing member.

(d) A member may be involuntarily terminated from the Agency at any time upon recommendation of the Board of Directors and a vote of two-thirds (2/3) of the parties who are members of the Agency. Involuntary termination shall have the effect of eliminating the party as a signator of the joint powers agreement and as a member of the Agency effective at the end of the fiscal year in which the action is taken or upon such other date as the parties continuing membership in the Agency may specify. Should a member be involuntarily terminated, reserve accounts shall be established pursuant to subparagraph (c) of this Article as though the member were voluntarily withdrawing, and the member shall continue to be responsible for all Agency costs and

liabilities attributable to or incurred by the member to the effective date of termination of membership. Grounds for involuntary termination include, but are not limited to, the following:

1. Failure or refusal of a member to abide by an amendment which has been adopted by the members of the Agency as provided in this Agreement.

2. Failure or refusal to make payments to the Agency as provided in Article 10(b).

3. Persistent failure or refusal to follow established practices and procedures of the Agency.

4. Such other grounds as determined by the Board of Directors with the approval of the parties to this Agreement.

15. DISPOSITION OF PROPERTY AND FUNDS.

(a) In the event of the dissolution of the Agency, the complete recision, or other final termination of the joint powers agreement by all members then a party to the Agreement, any real or personal property interest and other assets remaining in the Agency following a discharge of all obligations shall be disposed of by the Board of Directors, with the approval of the parties, shall then determine, with the objective of returning to each par ' then a member a proportionate return on the payments made to such properties and assets by such parties. Each member's pro rata share shall be determined in the same manner as for a withdrawing member as provided in subparagraph (b) below.

(b) In the event a member terminates membership in or withdraws from the Agency, the Board of Directors, with the approval of the parties, shall pay to the withdrawing or terminating member its pro rata

share of the total tangible assets of the Agency less obligations. A withdrawing or terminating member's pro rata share is defined as the total regular and special payments, charges, and assessments made by the member divided by the total regular and special payments, charges, and assessments made by all members from the inception of Agency to the date of the member's withdrawal or termination.

(c) The Board of Directors shall determine whether the obligation to pay a member's pro rata share shall be discharged through a transfer of property or through a payment of funds. If requested in writing by the member, and if determined by the Board of Directors to be feasible and equitable, the member's pro rata share shall be discharged by returning to the member the same or similar property, real or personal, initially owned by the member and conveyed to the Agency in satisfaction of the member's financial obligations. Said transfer or payment shall be made within a reasonable time following withdrawal or termination.

(d) The current fair market value of Agency properties and assets shall be determined by the Board of Directors. If the terminating member disagrees with the current fair market value of Agency properties and assets as determined by the Board of Directors, the current fair market value of said properties and assets shall be determined by a panel of three disinterested and qualified appraisers, one appraiser to be appointed by the Board of Directors of the Agency, one appraiser to be appointed by the Board of Trustees of the withdrawing or terminating member, and the two appraisers so appointed to jointly select a third appraiser. One-half of the fee of each said appraiser shall be a proper charge against the funds of the Agency.

E. MISCELLANEOUS PROVISIONS

16. AMENDMENTS.

This Agreement may be amended at any time with a subsequent written agreement signed by two-thirds (2/3) of the public educational agencies then members of the Agency. Any such amendment shall be effective upon the date of final execution thereof, unless otherwise provided in the amendment.

17. SEVERABILITY.

Should any portion, term, condition, or provision of this Agreement be decided by a court of competent jurisdiction to be illegal or in conflict with any law of the State of California, or be otherwise rendered unenforceable or ineffectual, the validity of the remaining portions, terms, conditions, and provisions shall not be affected thereby.

18. LIABILITY.

(a) Pursuant to the provisions of Sections 895, et seq., of the California Government Code, the public educational agencies which are members hereto are jointly and severally liable upon any liability which is otherwise imposed by law upon any one of the members or upon the Agency for injury caused by a negligent or wrongful act or omission occurring in the performance of the Agreement. If a member of the Agency is held liable upon any judgment for damages caused by such an act or omission and makes payment in excess of its pro rata share on such judgment, such member or the Agency is entitled to contribution from each of the other members that are members of the Agreement. A member's pro rata share shall be determined in the same manner as for the disposition of property and funds as provided in the Agreement.

(b) The Agency may insure itself, to the extent required by law and deemed appropriate by the Board of Directors, against loss, liability, and claims arising out of or connected with this Agreement.

19. ENFORCEMENT.

The Agency is hereby given authority to enforce this Agreement. In the event suit is brought upon this Agreement by the Agency and judgement is recovered against a member, the member shall pay all costs incurred by the Agency including reasonable attorney's fees as fixed by the court.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their authorized officers thereunto duly authorized as set forth herein below.

ANTELOPE VALLEY UNION HIGH SCHOOL DISTRICT DATE: March 20, 1980

BY: Roger C. Hoover

TITLE: Asst. Superintendent, Business Services

KEPPEL UNION SCHOOL DISTRICT DATE: May 14, 1980

BY: Edward Potter

TITLE: District Superintendent

LANCASTER SCHOOL DISTRICT DATE: March 20, 1980

BY: Herbert D Bartlett Jr.

TITLE: Deputy Superintendent, Business Services

WESTSIDE UNION SCHOOL DISTRICT

DATE: April 3, 1980

BY: James W. Bittaker

TITLE: Asst. Superintendent, Business Services

WILSONA SCHOOL DISTRICT

DATE: April 3, 1980

BY: Lloyd V. Goldsby

TITLE: District Superintendent

APPROVED AS TO FORM
JOHN H. LARSON, County Counsel

BY: Leroy W. Blankenship
DEPUTY

APPENDIX "A"

DISTRICT	ACTUAL MILEAGE 1978-79	ESTIMATED MILEAGE 1979-80	EST. TOTAL MILEAGE 1978-80	ESTIMATED %	ACTUAL MILEAGE 1979-80	ACTUAL TOTAL MILEAGE 1978-80	ACTUAL %
AVUHSD	439,990	464,270	904,260	48.644			
Keppel Union	128,277	132,489	260,766	14.028			
Lancaster	162,015	180,777	342,792	18.440			
Westside Union	146,852	141,475	288,327	15.510			
Wilsona	27,988	34,803	62,791	3.378			
TOTAL	905,122	953,814	1,858,936	100.000			